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EDUCATIONAL MISSIONS—V
REPORT OF THE MISSION TO LIBYA

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U N E S C O

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PREFACE

In the latter part of 1951 a commission of 18 specialists, representing the United Nations and the Specialized Agencies, and presided over by Professor Benjamin Higgins of McGill University, Montreal, Canada, was appointed to study the economic and social problems of Libya and to advise on the future development of the country. The Mission was under the auspices of the Expanded Programme of Technical Assistance of the United Nations and Specialized Agencies, and its report, entitled The Economic and Social Development of Libya, has now been submitted to the Libyan Government.

Unesco was represented on the Mission by Professor Roger Le Tourneau, Professor of the History of Islamic Civilization at the University of Algiers, who dealt with the educational development of the country; chapters on industrial and agricultural education were contributed by the specialists of the International Labour Office and the Food and Agriculture Organization. The final report as presented to the Government embodies the contribution of these three agencies in a condensed form.

The present volume contains the original full text of Professor Le Tourneau's recommendations, together with the abridged versions of the chapters on agricultural and industrial education, the whole giving a fairly complete picture of the present condition and probable future development of education in Libya.

Unesco desires to thank the Government of the United Kingdom of Libya for permission to publish the report, and the Directors-General of the International Labour Office and the Food and Agriculture Organization for allowing the work of their specialists to be included. It also expresses its thanks to Professor Higgins, the Chief of the Mission, who has contributed the introduction.

TABLE OF CONTENTS

Introduction: Education and the Economic and Social Development of Libya, by Professor Benjamin Higgins	7
I. Libyan Education and its Development, by Professor R. Le Tourneau	19
II. Technical Training for Industry	66
III. Technical Training in Agriculture	78

INTRODUCTION

EDUCATION AND THE ECONOMIC AND SOCIAL DEVELOPMENT OF LIBYA

The establishment of the United Kingdom of Libya as an independent State is one of the boldest and most significant experiments ever undertaken by the United Nations Organization, or by the League of Nations that preceded it. The post-war period has been marked by increasingly insistent demands from former colonial peoples for complete independence. These demands are often countered by the argument that countries which are economically and socially under-developed, and whose populations are illiterate and inexperienced in self-government, are not ready for independence. Few countries in the world are less advanced economically, have a higher proportion of illiteracy, or have been longer under foreign domination than Libya. Yet on 21 November 1949, following the failure of the Four Powers to agree on the disposal of former Italian colonies, the General Assembly passed resolution 289(IV) with the following key clauses:

'The General Assembly . . . with respect to Libya, recommends:

1. That Libya, comprising Cyrenaica, Tripolitania, and the Fezzan, shall be constituted an independent and sovereign State.
2. That this independence shall become effective as soon as possible and in any case not later than 1 January 1952.
3. That a constitution for Libya, including the form of the government, shall be determined by representatives of the inhabitants of Cyrenaica, Tripolitania, and the Fezzan meeting and consulting together in a National Assembly.
4. That for the purpose of assisting the people of Libya in the formulation of the constitution and the establishment of an independent government there shall be a United Nations Commissioner in Libya appointed by the General Assembly and a Council to aid and advise him . . .
11. That upon its establishment as an independent State, Libya shall be admitted to the United Nations in accordance with Article 4 of the Charter.'

CREATION OF AN INDEPENDENT LIBYA

The dramatic story of how this resolution was put into effect is told in some detail in the three reports of the United Nations Commissioner in Libya, Mr. Adrien Pelt.¹ A brief summary of main events must suffice here. The Commis-

¹ United Nations. *Annual Report of the United Nations Commissioner in Libya*, General Assembly, Official Records, Fifth Session, Supplement No. 15 (A/1340) Lake Success, New York, 1950; *Second Annual Report of the United Nations Commissioner in Libya*, General Assembly Official Records, Sixth Session, Supplement No. 17 (A/1949) and *Supplementary Report to the Second Annual Report of the United Nations Commissioner for Libya*, General Assembly Official Records, Sixth Session Supplement No. 17A (A/1949/Ad. 1).

sioner arrived in Tripoli in January 1950, with less than two years to accomplish his extraordinarily complex and delicate task. The United Nations Council for Libya, comprising representatives of the Governments of Egypt, France, Italy, Pakistan, the United Kingdom, and the United States, plus one representative of each of the three regions of Libya and a representative of the Libyan minorities, held its first meeting in April of that year. In July a Preparatory Committee of the Libyan National Assembly was established. It was composed of seven members from each region and became known as the Committee of Twenty-One. In October this committee decided that the National Assembly should consist of 60 members, 20 selected from each region. The Assembly held its first meeting in the following month. In December the Assembly made several fundamental decisions: that the new State should have a federal structure, with three provincial governments and one Federal Government; that it should be a constitutional monarchy; and that the Amir Mohammed Idris el Senussi should be King. The flag was approved in the same month. In March 1951 a provisional government was established, consisting of a Cabinet of six members under Mahmoud el Muntasser as Prime Minister.

Meanwhile, in December 1950, the Assembly nominated a Committee on the Constitution, which in turn established a working group of six members. From that time on, this working group met almost daily, with constant advice from the Commissioner, his legal adviser, other members of his staff, and later from members of the United Nations Mission of Technical Assistance to Libya. A draft constitution was presented to the General Assembly in September 1951, and was adopted in the following month.

The transfer of powers from the United Kingdom and French administrations to the Libyan governments proceeded in four stages. The first transfer was made in October 1951, and the last group of powers, including various matters of international relations, was transferred on 24 December 1951, establishing the United Kingdom of Libya as an independent State. Elections were held on 19 February 1952, and the provisional government was returned to power.

TECHNICAL ASSISTANCE FOR ECONOMIC AND SOCIAL DEVELOPMENT

The United Nations recognized from the first that a country such as Libya, where *per capita* income is about \$35 per year, where over 90 per cent of the adult population is illiterate, where serious war damage had been suffered, and which for centuries had been ruled by foreign powers, could not merely be made independent and then turned loose without further assistance. The original resolution of 21 November 1949 authorized the Commissioner to make suggestions to the General Assembly, to the Economic and Social Council, and to the Secretary-General regarding measures that the United Nations might adopt during the transitional period to assist Libya with her economic and social development. As early as May 1950, technical advisers on agriculture, currency and banking, and budgetary and administrative problems were made available to the Commissioner, and the Secretary-General undertook to send to Libya a small preparatory survey team. This team, headed by Dr. Carter Goodrich, came to Libya in July and reported to the Technical Assistance Board in the following month, recommending further surveys.¹

¹ Carter Goodrich, *Report of the United Nations Preparatory Mission of Technical Assistance to Libya*, New York, United Nations (TAB/R/57), August 1950.

The Goodrich report led to a request from the United Kingdom Government for 10 experts to appraise the economic position and potential of Tripolitania and the Fezzan, and in December 1950 a Basic Agreement was signed by the United Kingdom Government, on the one hand, and on the other by the United Nations, the Food and Agriculture Organization, the International Civil Aviation Organization, the International Labour Office and the United Nations Educational, Scientific and Cultural Organization. These experts, who covered the fields of general economics, agriculture, public finance, vital statistics, electric power, irrigation, viticulture, wool and social welfare, began to arrive in Libya in January 1951.

In March 1951 a similar agreement was signed with the French Government, providing that some of these experts should also cover the Fezzan. By the middle of 1951, most of the experts provided under these agreements had completed drafts of their reports.¹

While this preliminary work on the preparation of an economic and social development plan for Libya was under way, technical assistance of a more concrete kind was also being provided. In response to a United Kingdom request, the United Nations Educational, Scientific and Cultural Organization undertook to provide fellowships to train Libyans abroad. The World Health Organization undertook a preliminary survey of health conditions, and later sent a small mission to make concrete recommendations.

The Economic and Social Council and the General Assembly continued to pay special attention to Libya's needs in the technical assistance field. On 15 August 1950, the former body passed its resolution 322(XI) pointing out Libya's special needs for technical assistance and requesting the Secretary-General to present to the General Assembly specific proposals for assuring continued technical assistance between Libya's attainment of independence and her admission to the United Nations. The General Assembly, in resolution 398(V), asked the Economic and Social Council and the Specialized Agencies to consider Libya eligible to receive technical assistance as soon as she became independent. In resolution 289(V) the General Assembly requested the Secretary-General to provide for a study of war damages in Libya, in connexion with future technical and financial assistance to the country.

The present report is one result of Supplementary Agreement Number 4, of 27 August 1951, between the United Kingdom, the United Nations, and the Specialized Agencies, and of a similar agreement with France of 18 October 1951. Under these agreements, a team of 18 experts was provided to draw up a comprehensive plan for economic and social development, including 'a general economist to act as co-ordinator for the team, to provide general guidance for the work of the team, and to integrate the results of its work in an economic and social development plan', a general agronomist, to head the FAO group of experts 'and to provide the general economist with recommendations on the order of priorities for agricultural development projects'; experts on statistics, mineral resources, tanning, range management, agricultural credit, marketing, fishing, forestry, development financing, wool-processing, social welfare,

¹ The major reports of the survey team are the following: John Lindberg, *A General Economic Appraisal of Libya* (A/AC.32/Council/R.143); O. J. Wheatley, *Agriculture in Libya* (FAO/51/8/1840); A. A. Ahmed, *The Role of Electric Power in the Economic Development of Libya* (A/AC/32/TA/2/Rev.); R. El Shanawany, *Report and Recommendations Regarding the Organization of the Vital Statistics Services of Libya* (A/AC/32/Council/R.167); and V. Karakacheff, *Public Finance in Libya 1944-1951* (A/AC/32/Council/R.140), August 1951.

esparto grass, salt processing, and agricultural processing industries; an expert on handicraft industries; and two experts on manpower training, 'to assess the probable contribution to Libyan productivity of a man-power training programme, and to make recommendations to the general economist regarding the scope and nature of an appropriate manpower training programme'. Difficulties were experienced in recruiting some of these experts, and the work of the team had to be completed without assistance from specific experts on development financing, wool-processing, agricultural processing industries, salt-processing, and esparto grass. On the other hand, some members of the previous survey mission continued to work with the new team, an expert on war damages was added, and in the end 21 experts collaborated with the Chief Economist in preparation of the overall report.¹

Partly as a consequence of a misunderstanding of the functions of the Unesco team already in Libya when this agreement was signed, the original request included no expert on general education. As time went on, however, it became apparent to the Chief Economist and to other members of the team that education must be the core of any development plan for Libya, and that this serious gap in the team's composition must be filled. Accordingly a new request was made for such an expert and, by great good fortune, Unesco was able to recruit almost immediately Professor Le Tourneau of the University of Algiers, as 'an expert in general education to formulate recommendations for a programme of educational development'.

PROBLEMS OF ECONOMIC AND SOCIAL DEVELOPMENT IN LIBYA

As pointed out in the general report on the economic and social development of Libya, raising the Libyan standard of living will be no easy task. The Libyan economy offers discouragingly little with which to work. For decades to come, economic development of Libya must consist largely of raising productivity in agriculture, including animal husbandry. At present, over 80 per cent of the Libyan population is engaged in agriculture and animal husbandry. It is unlikely that this proportion will, or even should, drop significantly during the next few years. Agriculture itself faces extraordinary difficulties. For the population of only 1,200,000 Libya is a very large country — 1,750,000 square kilometres. Unfortunately, however, most of this area is desert. Dr. Lindberg estimates 'the potential grazing area at about 12 million hectares'.² Some 95 per cent of the population is concentrated in the Tripolitanian coastal plain and in the Cyrenaican and Tripolitanian Jebel. The rest live mainly in the strings of oases in the Fezzan.

Even in these areas, the soil is not good. The rainfall in Tripolitania and

¹ Benjamin Higgins, *The Economic and Social Development of Libya* (A/AC.32/TA/16). In addition to this general report and the present one on education, the mission produced the following major reports: O. J. Wheatley, *Agricultural Organizations for the Improvement of Libyan Agriculture* (FAO/52/1/436) December 1951; G. W. Cole, *Social Welfare Conditions and Social Welfare Services in Libya* (A/AC.32/TA/24); S. Kirkor, *The Balance of Payments of Libya* (A/AC.32/TA/9/Rev. 2) April 1952; D. K. Lindsay, *A Report on the Health Conditions and Health Services in Libya* (A/AC.32/TA/23/Rev. 1), April 1952; C. A. Morse, *A Report on Environmental Sanitation in Libya* (A/AC.32/TA/36) May 1952; A. L. Brichant, *A Broad Outline of the Geology and Mineral Resources of Libya* (A/AC.32/TA/27), March 1952; K. Petersen, *Report on the Statistical Services of Libya* (A/AC.32/TA/21/Rev. 1), April 1952.

² Op. cit., pp. 18-19 and 28-30.

Cyrenaica is both inadequate and unreliable. The Fezzan has virtually no rainfall, but has underground water near the surface. Expansion of Libyan agriculture will require extension of the irrigated area, but the degree to which underground water resources will permit such expansion is not clearly known.

If the prospects for rapid expansion of agriculture are not bright, the prospects for industrialization are still more limited. The basis for industrialization is almost completely lacking. Libya has no known mineral deposits big enough or rich enough to justify exploitation, except for such relatively unimportant things as natron, carnallite, and low grade sulphur. There is no coal and no water power. For the most part, the labour force is unskilled. Even if industries were established, they would be handicapped by the distance of Libyan ports from the major European, or even North African and Middle Eastern centres.

It is mainly because of these physical handicaps that the Libyan national income *per capita* is only 30 to 35 dollars per year. Moreover, even the present abysmally low average standard of living is possible only because of foreign aid. All three provincial governments operate at a deficit. The various Italian colonial development schemes, while impressive in their physical results, never became self-supporting. The deficits that riddle the Libyan economy are a reflection of the simple fact that the Libyan people as a whole are unable, under current conditions, to produce enough to maintain themselves even at existing levels.

Large-scale investment programmes of the sort that have contributed to development of Libya's neighbours, Egypt and Tunisia, are not feasible in Libya. The small population, meagre resources, and large area make many kinds of capital development projects impossible. The fact that the average density of population in Tunisia is 40 times that of Libya is a cause, as well as a result, of Tunisia's superior development.

There are other complications. Libya is an under-developed country in the sense that it is poor, and in the sense that its techniques are primitive and its capital equipment scanty. It is not 'under-developed' in the sense that North America or Australia were under-developed a century ago. The country is not underpopulated, relative to its resources. There are no rich mines, virgin forests, and fertile soils merely awaiting exploitation. As pointed out in the report on economic and social development:

'Some observers have contended that Libya is an *over-developed* country in the sense of being exhausted; the present problems of drought, soil erosion, and drifting sands are the product of past errors of over-cutting, over-grazing, over-irrigation, and over-tilling, followed by abandonment. There is indeed ample historical evidence that Libya was once more heavily wooded, more fertile and more productive *per capita* than it is today, capable not only of supporting its own population but of producing a substantial export surplus of foodstuffs as well. Viewed in this light, Libya is a gigantic "dust bowl", produced by careless and excessive exploitation in the distant past. The economic problem is therefore one of arresting decay, and launching a new era of progress, rather than of initiating economic growth in a country whose potential has never been realized.'¹

The Libyan economic situation is further complicated by the existence of modern harbour facilities, roads, railways, public buildings, public utilities, and housing built under the Italian regime. Much of this construction is of a

¹ Higgins, *op. cit.*, Chapter 1.

type really suitable only for a much more advanced economy. Moreover, these facilities have suffered extensive war damage. Only a few of them could be recommended for construction now if they did not exist already; yet many of them will be needed sooner or later as Libyan development proceeds, and if they are not restored now, they may be lost altogether. What to do? It seemed necessary to include a substantial item for repair of war damaged public works, public utilities, and public buildings in the development budget. The need to use financial and manpower resources in this manner is a further reason why only limited industrialization can be recommended for the first phases of Libyan development.

Finally, both the history and the geography of Libya make unification, and integrated development planning, difficult. The three provinces of the United Kingdom of Libya (Tripolitania, Cyrenaica and the Fezzan) are separated by hundreds of miles of forbidding desert and, outside the coastal area, transport and communications facilities scarcely exist. The three provinces comprise distinct geographic and economic units, never before united politically except as parts of the larger empires of foreign conquerors. The conflicts arising in all federal countries between those advocating a strong central government and those jealous of 'provincial rights' are already a familiar part of the Libyan political scene.

DIRECTIONS OF POTENTIAL LIBYAN DEVELOPMENT

Despite these formidable difficulties, the Libyan standard of living can be raised substantially by the execution of an appropriate development plan. The people are able and intelligent, and with proper training can acquire new skills and learn new techniques that will greatly enhance their productivity. Even the volume of unemployment, visible and disguised, which in the bad season of the drought years may reach 80 per cent of the labour force, is an asset in its way; if this huge volume of unemployment can be absorbed into useful occupations, total production of the Libyan economy can be considerably increased.

In agriculture and animal husbandry, the most hopeful fields for expansion are those already important in Libya's foreign and domestic trade. Sheep raising can be expanded for both wool and meat, given improved methods of handling and marketing. Cattle and horse grazing can also grow, although here some selective breeding and imports of sires may be desirable. Production of cereals, especially barley, can be further increased. Olives and olive oil are a hopeful investment. The Libyan citrus fruit is good, and with better grading, handling, and packing, export markets might be enlarged. Almonds grow well and are of good quality. Dates might find a foreign market if properly graded, packaged, and preserved. Other fruits and vegetables, groundnuts, and castor beans might also be grown in greater quantities, and egg exports might also be increased.

The limitations on industrial development are apparent from what has been said above. The programme recommended for the first phases of Libyan economic and social development does not envisage the sharp decline in relative importance of agriculture and other primary industries, the marked growth in manufacturing, trade, and commerce, and the relative growth of urban population, that have characterized western economic development. There seems to be no foundation for establishing large new industries, totally

new types of transport facilities, or gigantic engineering works of any kind. In the early phases of Libyan development, at least, industrialization must be limited to industries processing local raw materials, mostly agricultural or animal products, and producing items for which there is some home market. Most promising among these are handicrafts, boots and shoes, textiles, tanning, olive oil, meat packing, and the freezing of meat, fish, and vegetables. Other possibilities are a modern dairy for Tripoli and charcoal burning. In later phases of the plan, the handicrafts industries might be mechanized, and some increase in the proportion of the gainfully occupied persons engaged in industry will be desirable. The Tripoli power plant needs replacement and perhaps expansion, and since this project will take time it should be started within the next few years. On the whole, however, industrial projects in Libya should remain on a modest scale, once war damaged facilities have been restored.

REASONS FOR EMPHASIS ON EDUCATION

From this analysis of Libyan problems and potentialities, brief as it is, the reasons why the team stressed education, including training in processing industries and in agriculture, should be clear. With so little else to work with, every effort must be made to raise the productivity of the people themselves by direct means. In a country where over 90 per cent of the adult native population is illiterate, it is obvious that education is crucial for social development; but the team reached the conclusion that education is vital for economic development as well:

‘Libya has only one major untapped resource: the latent skills of its people. Raising the productivity of the Libyan economy must consist largely of improving the production methods used by the people in their present occupations. Especially in the first phase of development the emphasis must be on teaching the Libyans to do better what they are already doing. The educational programme includes training in agriculture, in light industry and in handicrafts. But supporting any specialized training, there must be a solid foundation of general education. On this point, the team was unanimous; all the members were led to the same conclusion, that an attack on illiteracy, improved facilities for elementary education, and general development of Libyan minds and bodies, must be among the top priority projects in any plan for the economic and social development of the country.’¹

Thus the plan recommended by the team for the first phase of Libyan development concentrates on agricultural improvement and education, in the broad sense, as inseparable factors for raising Libyan output *per capita*. The emphasis is on teaching Libyans better techniques in agriculture and light industries, and on introduction of better tools and higher skills. Even in agriculture, education in this broad sense is the core of the plan. In addition to technical training in agricultural schools and the introduction of an agricultural bias into elementary school teaching, the programme calls for experimental work, demonstration projects and extension work, to teach the practising farmer how to raise productivity per man hour and per hectare. But the extent to which productivity can be raised through technical training is limited by the illiteracy and general lack of education of the people. To make the training

¹ Higgins, *op. cit.*, Chapter 24.

programmes effective, formal schooling must also be extended and improved.

The role of education in economic and social development is well understood by the Libyan Government. In his speech from the throne upon the opening of the first session of the new Parliament, King Idris stated:

‘My government fully realizes that education is the only factor apt to make the nation an effective force keeping abreast with the procession of dignified life and modern civilization; it is the beacon which guides the people and enables them to realize their ideals and grasp the effective means of progress towards perfection. The first step worthy of great care is to unify the curriculum of education in the United Kingdom of Libya on the basis of the Egyptian programmes, and to make its purpose clear and definite, that purpose being to create a good, fruitful generation, straightforward in its morality, organized in its thinking, believing in God and loyal to its fatherland. Therefore my government is now proceeding to establish a higher Council of Education, composed of those who are most efficient and best qualified to achieve results, in order thus to secure for the country the unity of curriculum and methods of teaching, bearing in mind the environment, nationality and religion of the land.’

SPECIAL EDUCATIONAL PROBLEMS

Apart from the direct contribution that education can make to Libyan productivity, there are certain social customs, attitudes and institutions that may prove a barrier to economic and social progress, and which call for a special kind of educational effort.

One of these problems is the attitude towards saving and interest. At present Libyan development is almost entirely dependent on foreign aid. The flow of domestic savings is very small, and much of it takes the form of accumulation of livestock, silver ornaments or land, rather than the monetary form which provides loan funds for investment purposes. The meagre monetary savings of the Libyan population are made available to borrowers only at extremely high rates of interest, and the loans are usually masked as sales to evade legal and religious bans on usury. If Libyan development is to continue and true economic independence is to be achieved, a substantial volume of monetary savings must be promoted and the savings must be made available for investment at reasonable rates of interest.

Forty per cent of the Libyan population is nomadic or semi-nomadic. The nomadic culture, while primitive, is well adapted to the country's harsh conditions. Yet any of the recommended projects and programmes for economic development require a settled population. If the nomads are to become static farmers or industrial workers, they will need a new social orientation.

The attitude of most Libyans towards work is conditioned by centuries of foreign rule, the vagaries of climate, recurrent drought, malnutrition, and an emphasis on contentment rather than an emphasis on material accumulation. Ordinary income incentives do not seem to be completely effective in persuading Libyans to work harder, longer, or better. Yet if Libyan productivity is to rise significantly, some incentives must be found to increase the quantity and quality of effort expended. The same may be said of willingness to assume the risks of enterprise. Here is another educational problem.

Finally, and most difficult of all, Libyan birth rates must fall if a continuous rise in *per capita* income is to be achieved. The present birth rate is appallingly

high—about 5.3 per cent per year. Population growth is kept within manageable limits only by a still more appalling death rate—about 4.2 per cent. The high death rate reflects mainly malnutrition and ignorance; basically, Libya is a healthy country. As economic and social development proceeds, death rates will fall; and unless birth rates fall as well, the population could grow at an alarming rate, literally swallowing up all the gains from higher productivity. Here is an educational task of the most complex kind.

GENERAL NATURE OF THE EDUCATION PROGRAMME

The education programme recommended in the report submitted to the Libyan Government has four main subdivisions: proposals for the formal school system, proposals for agricultural training, proposals for other technical training, and proposals for adult and special education. With regard to the school system, the first requirement is to increase the number and improve the quality of Libyan teachers. For this purpose, the men's and women's teacher training centres at Tripoli must be improved and a new teacher training centre established at Benghazi. At both Tripoli centres, library books, laboratories, sports equipment, and model schools for practice teaching are necessary. In Benghazi, buildings, equipment, a staff of at least nine teachers, and funds for maintaining 40 boarders are needed. Special efforts must be made to educate women, and assistance to the Tripoli training centre, in the form of laboratories, equipment, and library is proposed. It is also proposed to establish a summer school at this centre. An expert in women's education and kindergartens is needed. Later, additional secondary schools must be established, and special attention must be given to the problem of educating nomads. A production centre for textbooks and educational material is also necessary.

Agricultural training is partly a matter of introducing an agricultural bias into regular instruction in primary schools, partly a matter of including a certain amount of practical instruction in agriculture by means of school gardens, and partly a matter of establishing agricultural training centres. The latter programme involves expansion and improvement of existing facilities at Sidi Mesri and Magdalena. Personnel, equipment, and buildings for teaching, for resident students, and for animals must be provided for this purpose. The introduction of an agricultural bias in rural schools and school gardens, will require some equipment and materials. Training agricultural technicians at the university level can be accomplished only by means of fellowships for study abroad. Twenty-five scholarships in the field of agriculture are suggested.

With regard to technical and vocational training, schools already exist in Tripoli and Benghazi, but they need more and better qualified personnel, equipment and building space. The training of engineers and technicians must be done abroad and fellowships are suggested for this purpose. The technical and clerical centre at Tripoli should have a section for training instructors. Finally, a network of workshop-schools should be established at the primary school level. These programmes will require instructors, equipment for practical instruction and building space.

EDUCATION AND THE DEVELOPMENT BUDGET

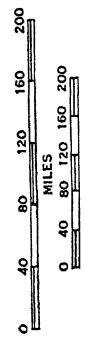
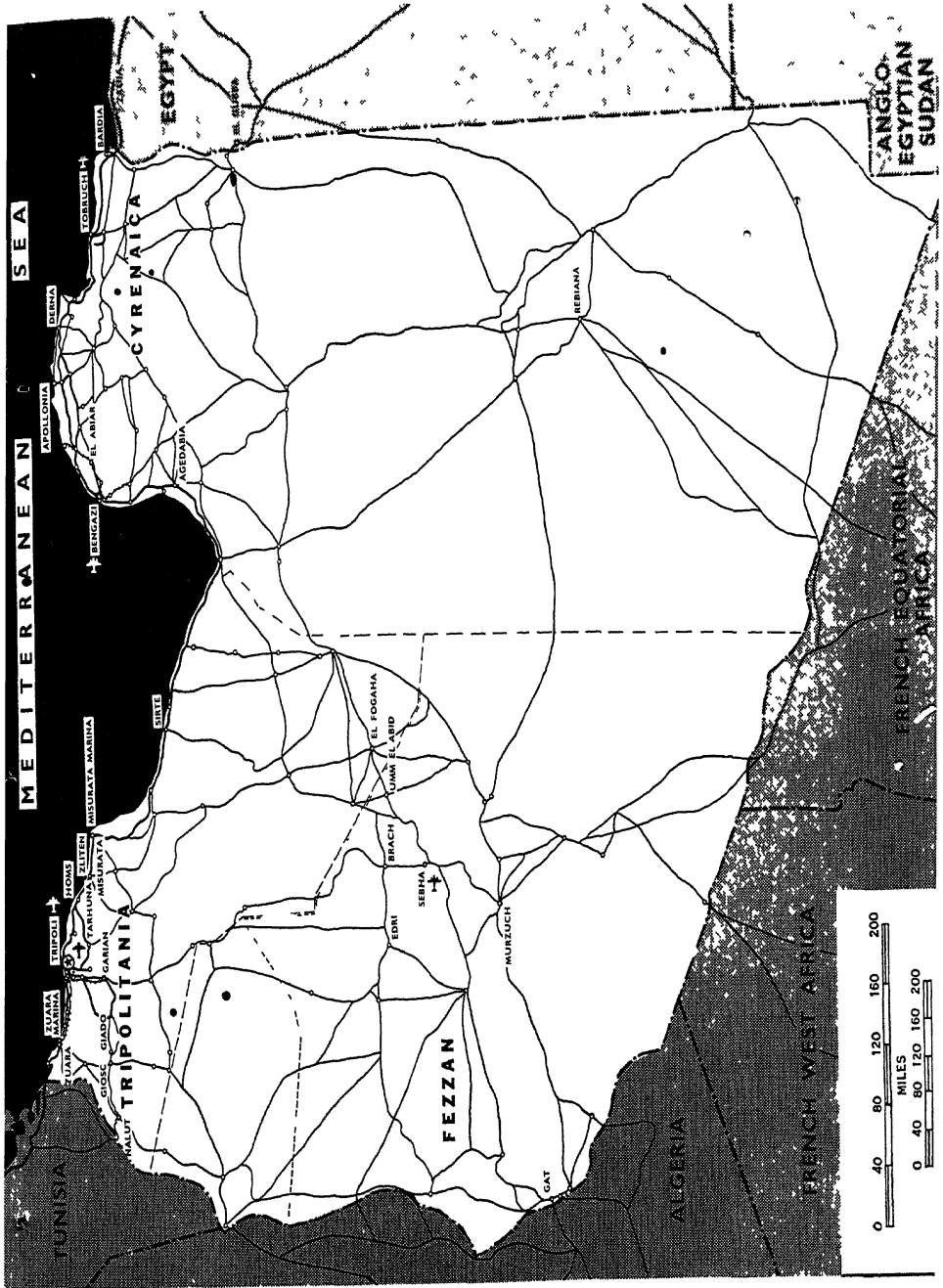
Libya is especially fortunate in having two international agencies, created

under United Nations auspices, to finance economic and social development. The United Nations Commissioner in Libya soon recognized that Libya could not finance her own development until a substantial rise in her national income had already been achieved. Accordingly, he set about early in his mission to organize machinery through which friendly nations could provide financial assistance to Libya, without endangering Libya's sovereignty. A Committee of Experts on Libyan Monetary, Financial and Development Problems was organized, with representation from the Governments of the United Kingdom, the United States, France, Italy and Egypt, as well as from the United Nations political and technical assistance missions in Libya. This committee met in five sessions, the first in March 1951 and the last in September 1951. The committee drafted a Currency Law which was later passed, in slightly modified form, by the Libyan Government. They also made preliminary arrangements for support to the ordinary budget of the Libyan Government by France and the United Kingdom, later crystallized in formal financial agreements. From the standpoint of economic and social development, however, the most important outcome of the committee's deliberations was the establishment of the two institutions for the financing of such development: the Libyan Public Development and Stabilization Agency, and the Libyan Finance Corporation.

The Development Agency is authorized to receive grants from foreign governments and to make grants to Libyan government agencies, private organizations, or individuals for development projects and programmes included in a plan approved by the Libyan Government. Representation on the Board of Direction of the Agency is proportionate to the size of the contribution made by each government or government agency, except that the Libyan Government is represented on the Board irrespective of any contribution. At the time of writing (June 1952), it appears that the Development Agency will have funds of about £830,000¹ for its first year's operations: £390,000 from the United Kingdom, £100,000 from France and about £340,000 from the Libyan Government itself, the latter figure representing the \$1,000,000 gift included in the financial agreement between the United States and Libya. However, according to the Statutes of the Agency, 25 per cent of the funds must be set aside each year for a Stabilization Fund, until a reserve of £1,000,000 is built up. Thus the amount available for development spending in the first year will be about £625,000.

The Libyan Finance Corporation is authorized to receive subscriptions from foreign governments or government agencies, and to make intermediate or long term loans, at low rates of interest and on favourable terms, for development purposes. As in the case of the Development Agency, the general plan of the Corporation is subject to the approval of the Libyan Government, and Libya is represented on the Board of Direction automatically, while other subscribers have voting power proportionate to the size of their subscriptions. The Corporation is to be primarily a financing agency, lending money to other institutions for distribution among individual borrowers, but it is empowered to lend directly to individual borrowers where expedient. It is not yet certain what the capitalization of the Corporation will be. At the Fourth Meeting of the Committee of Experts on Libyan Monetary, Fiscal and Development Problems, the Italian delegation declared the willingness of the Italian Government

¹ Figures are given in pounds sterling.





Polling Day at Tobruk,
Cyrenaica: registering before
voting.

Photos Unations

The National Assembly of Libya meets under the chairmanship of the Mufti of Tripoli, Mohammed Abdul Asa'd al-Alem.



to subscribe up to £600,000; and it is hoped that subscriptions from other governments will bring the total up to £800,000, permitting an annual turnover of £200,000 to £300,000. Even this sum will not meet the need for loan capital in connexion with economic development.

In addition to subscriptions or contributions to the two institutions for financing development, foreign governments will assist the Libyan Government through the United Nations and United States technical assistance programmes. At its meeting in Paris, in February 1952, the Technical Assistance Board approved the expenditure of some \$1,500,000 in Libya in the fiscal year 1952/53 under the Expanded Technical Assistance Programme of the United Nations. The United States Government has approved an outlay for technical assistance in Libya amounting to \$2,700,000 over a somewhat longer period,¹ through the Libyan-American Technical Assistance Service (LATAS), which has been set up to administer Mutual Security Agency activities in Libya. Thus the two technical assistance programmes constitute the bulk of the development budget, the total outlays exceeding the combined outlays of the Development Agency and Finance Corporation.

The combination of technical assistance, grants through the Development Agency, and loans through the Finance Corporation is an exceedingly happy one. It means that expert planners, scientists, teachers and technicians can be provided through the technical assistance programmes, with the assurance that funds will be available through the Development Agency to support these experts with local labour and equipment. It means that the funds of the Agency in turn can be reserved for local labour and equipment, and need not be exhausted on top-level personnel. At the same time projects and programmes promising a reasonable return on investment can be financed by the Finance Corporation and, if this Corporation receives adequate funds, such projects need make no inroads into the technical assistance or Development Agency budgets. The budget presented in the final chapter of the general report on *The Economic and Social Development of Libya*² was drawn up with this division of function in mind. It was designed as an integrated programme for the Development Agency, the Finance Corporation and the United Nations and United States technical assistance programmes over the first six years of execution of the development plan.

Despite its importance in the whole programme of economic and social development, education does not absorb a large share of the budget of the Development Agency, and does not enter at all into the recommended budget of the Finance Corporation. The budget proposed for the Development Agency includes £53,500 for general education in the first year, and an average of £35,000 for this purpose over the following five years. For technical training in agriculture, the recommended outlay is £13,500 in the first year and £4,500 per year over the next five years; and for technical training in industry, the figures are £60,000 in the first year (mostly for equipment) and £7,000 average annual outlays over the succeeding five years. By way of comparison, the recommended outlay for agricultural improvement is over £205,000 for the first year and an average of some £320,000 over the next five years, and for repair of war damages and related public works is £260,000 in the first year and an average of £195,000 over the next five years. Of course, some of the

¹ Up to 30 June 1953.

² Higgins, *op. cit.*

expenditures for agriculture, which involve teaching farmers better techniques, might be classed as part of the educational programme.

Education plays a somewhat larger role in the technical assistance budget. This is not surprising; education is very largely a matter of trained personnel, and as yet Libya simply does not have an adequate supply of trained teachers and instructors. The Technical Assistance Board Working Party on Libya, in its report to TAB of 2 February 1952, estimated that of the total minimum budget of the United Nations technical assistance in Libya, amounting to \$1,548,500, technical training in industry to be provided by the International Labour Office would absorb \$86,500; the teachers' training and technical and clerical training programmes were estimated at \$185,000 (Unesco and ILO); and fellowships and scholarships were estimated at \$150,000. Here too, however, agricultural improvement absorbs a greater share of the budget; the estimated minimum outlay for the Food and Agriculture Organization technical assistance amounts to \$600,000.

Education and agriculture are also the major items in the LATAS programme. Outlays for education up to the end of June 1953 are estimated at \$242,000 in Cyrenaica and \$575,000 in Tripolitania. The comparable figures for agriculture are \$675,000 and \$340,000. A sum of \$270,000 is allocated to health projects, \$248,000 is reserved for county agents projects and the like, and \$150,000 is set aside for assistance to the Fezzan.

OUTLOOK FOR LIBYAN DEVELOPMENT

The budget presented in the report on economic and social development of Libya covers only its first phase. In itself, the programme outlined therein should bring a substantial rise in Libyan productivity, as well as in the general level of culture and civilization. Eventually, however, some change in the structure of Libyan economy will be necessary, if productivity is to continue to rise and Libyans are to enjoy progressively higher standards of economic, social, and cultural well-being. As labour-saving techniques are introduced into agriculture, even though intensive agriculture will replace extensive agriculture to some extent, the net effect will ultimately be to release manpower for employment elsewhere. Even now, there is a great deal of disguised unemployment in agriculture, which could be absorbed into other occupations without reducing agricultural output. Accordingly, while very little industrialization is recommended for the first phase of Libyan development, some industrialization must take place later if the entire Libyan population is to be fully and productively employed. The educational programme itself must be modified as time goes by, to make it appropriate for each successive phase of economic and social development.

B. HIGGINS

I. LIBYAN EDUCATION AND ITS DEVELOPMENT

THE EXISTING EDUCATIONAL SYSTEM IN LIBYA

As Libya has a federal form of government with three component provinces which have hitherto been administered by different authorities, I shall first give an account of the respective educational systems of Tripolitania, Cyrenaica and the Fezzan, confining my general comments to the end of the report.

EDUCATION IN TRIPOLITANIA

Statistics

There are at present (end of the school year 1950-51) 244 schools providing modern education; 32,928 pupils attend these schools and 1,192 teachers are employed in them. The following table shows the number of teachers and pupils belonging to each of the four principal racial groups:

	<i>Arabs</i>	<i>Italians</i>	<i>Jews</i>	<i>Maltese</i>	<i>Total</i>
Teacher	756	364	64	8	1,192
Pupils	24,150	6,304	2,164	310	32,928

It should be remembered that, in addition to these modern schools, there are the traditional Koranic schools for which we have no very reliable figures, and four traditional higher schools (Ahmed Pasha and Mezran at Tripoli, Sidi Abd-al-Slam at Zliten and Sidi Zarrugh near Misurata) which are attended by a total of some 800 pupils.¹

Organization

All the modern schools come under the authority of a Ministry of Education organized as follows:

The Libyan Minister of Education is assisted by a director and a deputy-director, both of whom are British. The main departments are those of: Primary Education, for which a Libyan chief inspector is responsible; Italian Education, placed under the authority of an Italian superintendent who has been adviser to the Tripolitanian Minister of Education since 1 October 1951; Finance and Equipment; and Fellowships and Adult Education Courses. These two latter departments are both directed by British officials. Secondary schools are directly responsible to the director and deputy-director.

¹ According to the Sheik-Director, Zawiyat Sidi Abd-al-Slam alone has 450 pupils.

The chief inspector, who is head of the Primary Education Department, is assisted by five provincial inspectors resident respectively in Tripoli (16 schools), Souk el-Giuma (13 schools), Zavia, Garian and Misurata. The inspectors of these three latter districts are in turn assisted by sub-inspectors, each of whom supervises a small number of schools scattered over an area which is generally of reasonable size. The Garian inspector has four sub-inspectors under him: at Garian (16 schools), Jefren (7 schools), Giado (5 schools) and Nalut (9 schools); the Misurata inspector, who is directly responsible for the Misurata district (13 schools), has two sub-inspectors, one at Homs (17 schools) and the other at Tarhuna (14 schools); while the Zavia inspector is directly responsible for the Zavia district (30 schools) and has a sub-inspector at Zuara (6 schools).

Primary Education

Primary education is provided in schools of varying importance, but of two main types:

1. Schools with six classes, some of which can be divided into several sections if there is a sufficient number of pupils.
2. Incomplete schools containing a maximum of five classes; some of these schools are of recent establishment and will sooner or later become six-class schools, and others are attended by such a small number of pupils that the organization of a full primary curriculum is not considered justified. In this connexion, it should be noted that there is no school in Tripoli with six primary classes; all the sixth-year pupils of the town have been grouped together, in order to make the best and most economical use of available teachers. The premises are mostly former school buildings constructed by the Italians, some being former Italian barracks converted into schools; but there are a few new buildings.

As a result of the increase in the number of schools and classes and also of changes in curricula (teaching entirely in Arabic instead of the old system, in force before 1940, of parallel teaching in Italian and Arabic), the number of Libyan teachers formerly employed is now quite inadequate. As the Tripolitanian Government is determined to employ only Libyan teachers in primary education, it has been obliged to recruit a majority of young people fresh from school. The chief characteristics of these teachers are therefore their youthfulness, lack of experience and very limited knowledge. The heads, or at least those of the most important schools, were trained before the war and know their job, but they do not always seem to have enough authority over their young colleagues. Thus, although they are relieved of the actual task of teaching and have the necessary time, they fail to play the part in training the new teachers which might have been expected of them. Lastly, it should be pointed out that transfers of teachers from one post to another are extremely frequent and it is unusual for a teacher to remain for several years in the same post.

The Tripolitanian Government has adopted the Egyptian primary education curriculum,¹ but with the following modifications:

1. In order not to have to employ foreign teachers, no foreign language is taught in primary schools.

¹ Egyptian Ministry of Education, *Manāhij al-dirāsa li-l-madāris al-ibtidā'iyya li-l-bānīn wa-l-banāt*, Cairo, September 1949.

2. History and geography teaching is focussed on Libya, not on Egypt.¹ The textbooks used are also Egyptian; teachers of history and geography receive exact instructions regarding the curriculum which they are to follow, and, providing that their knowledge is sufficient, they are thus able to teach without a book, pending the publication of Libyan textbooks. The other books (for reading, arithmetic, etc.) can be used more easily, but they were originally designed for children of the Nile Valley whose mode of life is somewhat different from that of the Libyans.

The curriculum includes practical work which, as in Egypt, consists of handicrafts or gardening, according to the children's age and circumstances. In actual fact, very little of this practical work is done, owing to lack of equipment and gardening ground and also, primarily, because the teachers who have been recruited on the spur of the moment — and they are the majority — have not received any training of this kind. By chance, I was present at the beginning of a physical training lesson in one of the schools. It was quite obvious that the young teacher in charge had no idea what to teach. There again, the need for technical training is evident.

The daily time-table is as follows: theoretically, classes are held only in the morning, but in practice, owing to the lack of buildings, the system of 'shift' classes is adopted almost everywhere, i.e. pupils and teachers of the higher classes come in the morning and those of the lower classes in the afternoon. When the headmaster does not take any classes, which is the case in all schools with a minimum of six classes, he remains permanently at the school; when he takes a class, he is absent from the school, save in exceptional circumstances, for half a day. Details of the daily morning and afternoon time-table are annexed hereto.²

The school year begins on 1 October and ends on 30 June; every Friday is a holiday; in addition, an average of 10 days during the school year are holidays, their exact number varying according to the date of the Moslem feast days.

School attendance seemed to me to be satisfactory on the whole, except in rural schools of the eastern province; in one of them, out of 81 pupils registered, only 36 were present the day I was there; in another, only one class out of two was present, with 11 pupils attending out of the 24 registered. I was told that they had been kept from school because they were needed to work on the land; but children of the other provinces are also needed for agricultural work, and yet in their schools the proportion of absentees was normal, i.e. 10 per cent of the total number of children registered. Consequently there must be some other reason for this state of affairs — possibly greater poverty, but certainly also the lack of interest shown by many parents in their children's school education. Apparently this indifference towards education is also prevalent among the nomadic tribes that live between the mountainous area, stretching from Nalut to Tarhuna, and the Fezzan.

Generally speaking, however, both parents and children are immensely enthusiastic about education; some children walk 12 kilometres a day to go to school. In the village of Mazgura, the population did not hesitate to sacrifice a bay of the Mosque in order to convert it into a temporary classroom; at Tmisda, in the same region, the inhabitants are building a classroom at their

¹ Details of the Tripolitanian curriculum are annexed hereto (Appendix II, p. 57).

² Appendix III, p. 57.

own expense; in other places, the population is asking for a school or an additional classroom.

Teachers' Training

The foregoing account of primary education in Tripolitania makes it clear that there is an urgent need for qualified teachers. In 1948, therefore, the Ministry of Education began by organizing a training section in the secondary school at Tripoli; then, in October 1950, it established a teachers' training centre at Sidi Mesri in the suburbs of Tripoli.

At this centre, installed in some former Italian barracks, there are 168 trainees, 122 of whom are boarders; and 250 trainees could easily be accommodated in the buildings at present available. With other buildings which could be repaired at relatively low cost, it is estimated that the centre could take in as many as 400 students. The buildings are spacious and the boarding-house very well run.

The teaching staff consists of a Palestinian director, appointed on 1 October 1951, and 15 teachers, 10 of them Palestinians and 5 Libyans. All the Palestinian teachers are very comfortably housed at the centre; they all have university degrees and are experienced teachers.

The students are divided into three years:

First year: 84 students (12 others are still expected) divided into three sections;

Second year: 58 students divided into two sections;

Third year: 29 students who spent one year in the training section of the secondary school before the establishment of the teachers' training centre. All these trainees have had only a primary education, concluding with the school-leaving examination. They are selected, on the basis of a further examination, by a board composed of teachers from the centre and members of the Ministry of Education. From this year onwards, they must undertake in writing to serve at least three years in public education.

In the first year, their training is mainly a general one; in the second and third years, theoretical and practical pedagogical training takes a more important place (see Appendix IV p. 58). For the time being, practical work in physics, chemistry, and biology is very restricted, owing to lack of laboratory equipment; physical training occupies a small place and agricultural teaching can only be theoretical, since the centre possesses neither a suitable piece of land nor the necessary implements. Further, there is no school annexed to the centre, so that the trainees have to go out to various schools in Tripoli to gain practical experience, which means that a great deal of time is wasted. Lastly, the library is still very poor, being particularly short of books in Arabic.

Secondary Education

In 1948 there were four secondary schools situated respectively at Tripoli, Zavia, Zuara, and Nalut. The two latter schools, which never had more than two classes, have been abolished for reasons of economy, but each of the two others has been enlarged by a boarding-house, which enables them to take in pupils from all over the country; the school at Tripoli receives those of the Tripoli area and the eastern province; the Zavia school takes pupils from the western and central provinces. Both are established in former Italian barracks and can, if necessary, be enlarged considerably.

Both schools are directed by Libyans with Egyptian university degrees. Their teaching staff is composed partly of Libyans and partly of foreigners: 33 teachers at Tripoli, of whom 19 are Palestinians, 9 Libyans, 2 Egyptians, 2 British, and 1 Maltese, 14 at Zavia, of whom 6 are Libyans and 8 foreigners (Egyptians and Palestinians).

In all, there are 539 pupils, 170 of whom are boarders. They all hold the primary school-leaving certificate and, from this year onwards, must also pass a qualifying examination before entering the secondary school. They are grouped in the following way:

<i>Year</i>	<i>Tripoli</i>	<i>Zavia</i>
1st	154 (4 sections)	190 (3 sections)
2nd	97 (3 sections)	43 (2 sections)
3rd	50 (2 sections)	8
4th	42 (1 section)	—
5th	45 ¹	—
Total	388 ²	151 ³

¹ Divided into 3 sections: arts, 11; mathematics, 14; experimental sciences, 20.

² 70 of them boarders

³ 100 of them boarders

The curriculum followed is that of Egyptian secondary education, except for the following modifications: in history and geography teaching, Libya instead of Egypt is the central subject; the first foreign language taught is English; up to October 1950, French was the second language, but since then Italian has gradually been taking precedence over French.

There is still a serious lack of laboratory equipment; the libraries need extending; sports equipment is available, but in Tripoli there is no sports-ground for the pupils near the school; those at Zavia are more fortunate. The two boarding-houses, entirely free charge, are well equipped and spacious, and could easily take double the number of pupils. The latter have at their disposal a sort of club, with a ping-pong table and a reading and writing room; at Zavia, they also have a lecture hall, equipped for the showing of films, and plans for installing a theatre are being made. At Tripoli, they produce a weekly newspaper, with an admirable layout, which is posted up at the school entrance; when I visited their school, they were about to elect committees for their club, newspaper, dramatic activities, etc.

In short, both schools give the impression of abounding with life and activity and there seems every reason to believe that they will continue to develop successfully.

Education for Girls

Taking the customs of the country into consideration, it is not surprising that girls' education should be backward. On the contrary, it is encouraging to learn that nearly 3,000 girls (2,923, to be precise) attended public schools in 1950-51, that there is a girls' school even in the distant village of Hon, and that it is not unusual for small girls to attend boys' schools, particularly in the western province.

Nevertheless, what already exists can be considered only as a very modest beginning. There are extremely few girls in the higher classes. Attendance is

unsatisfactory; the day that I visited the girls' school at Zavia, a quarter of the pupils were absent, and yet the school is well run. At Giado, I noticed that there were 47 pupils present out of 71 registered, and at Zliten, 30 present out of a total class of 45 girls; even at Homs, which is an old city, only 64 girls were present out of 86 registered. The teaching is generally of a low standard, because the teachers, almost all of whom are apparently very young, have had no more pedagogical training than their colleagues in the boys' schools, and their general grounding is far more deficient. The curriculum is the same as that of the boys' schools, except of course that manual work in the case of girls consists of needlework. If only this occupation had some educational value! But I fear that the perpetual embroidering on canvas which I saw going on everywhere serves no useful purpose at all in the lives of most of these future wives and mothers.

The foregoing remarks are not intended to imply that I came out of these girls' schools feeling discouraged. The Ministry of Education has tried to do something, and has at least succeeded in getting girls' schools accepted as part of the life of the country — in itself no mean achievement. It is doing still more, for it intends to remedy the existing situation, which it openly recognizes as very unsatisfactory in many ways, by establishing a teachers' training centre for young women. Here at once I would strike a more optimistic note, for this new establishment augurs very favourably for the future.

The centre has been set up in the heart of Tripoli in the buildings formerly used by the Italians for the Islamic College, which they had established for the training of Moslem magistrates and Arabic teachers. These buildings are spacious and can be enlarged considerably by extending the first floor, which at present stretches across only half of the building.

The directress is a Palestinian of great merit, thoroughly competent to direct a teachers' training centre and extremely keen on her work. She is at present assisted by seven Palestinians and an Anglo-Maltese who teaches English. I was very favourably impressed by this teaching staff.

The centre, which was founded in October 1950, so far provides for two separate years of study only; a third year will be introduced from October 1952 onwards. At present there are 89 trainees, of whom 16 are boarders (for the time being, the boarding-house cannot take in more than 16 girls). The students are grouped in the following way: 1st year: 63 students divided into three sections, according to their age; 2nd year: 26 students (one section).

These students do not have to undertake to enter the teaching profession, because the centre, as it now exists, forms the nucleus of a girls' secondary school as well as being a teachers' training institution. The Ministry of Education intends later to separate the two establishments; only then will the students at the teachers' training centre, like their colleagues at the Sidi Mesri centre, be called upon to pledge themselves in writing to enter the teaching profession.

The syllabus is evolved as new classes are formed. It differs appreciably from that of the Sidi Mesri centre, as would appear perfectly reasonable.¹ For the time being, domestic science and sewing are the only practical activities included, partly because the proposed laboratories have not yet been installed, and partly because the girls' primary school, which is established in the centre's buildings, has not yet been transformed into a school annexed to the centre for purposes of practical teaching experience.

¹ Details are annexed hereto (Appendix V, p. 59).

The centre is not only an institution for girls which might serve as a model for the whole of Libya; it is also the only educational establishment where a really effective school medical service exists. There is a well-organized clinic for medical examinations and an Italian doctor comes twice a week to deal with ordinary cases; a nurse from the Colonial Hospital is there every morning and gives the treatment prescribed by the doctor. Students suffering from complaints that require the attention of a specialist are sent to the Colonial Hospital.

The girls who have taken the three-year course at the centre, and who will then enter the women's teaching profession, cannot fail to improve considerably the quality of girls' education.

Italian Schools

The British Administering Authorities have maintained schools for Italian children in all places where the number of children of school age justified such a measure. The *de facto* status of Italian schools, which were initially kept up entirely by the Military Government, was transformed into a *de jure* status under an agreement concluded between the Italian Government and the Occupying Power; since 1 October 1951, the Italian Government has undertaken full responsibility for the remuneration of Italian teachers, whether in public or private schools.

The Italian schools consist of 22 nursery schools, 72 primary schools, and 7 secondary schools. They are divided into public schools, in which the teachers are civil servants responsible to the Italian Ministry of Education, and private schools, where the teachers are mostly members of various religious communities of men and women, or sometimes laymen employed by one community or another. Arabic is generally taught by Libyans made available to Italian schools by the Ministry of Education.

These schools follow the official Italian curricula, except that Arabic is taught in all primary and secondary schools, an arrangement which has necessitated a few alterations in the time-table. As far as I could see, the teachers are competent and the material at their disposal is adequate. The educational standard in Tripolitanian schools is certainly as high as that of schools in Italy.

Lastly, attention should be drawn to the fact that the Italian schools are not reserved for Italian children, but accept pupils of every nationality and creed, particularly Jews (128 in the primary schools and 132 in the secondary schools), Moslem Libyans (322 in the primary schools and 5 in the secondary schools) and Maltese (74 in the primary schools and 19 in the secondary schools).

Jewish Schools

Jewish schools, of which there were five in 1948, were reduced to three in 1950; now there is only one left, and that will probably disappear at the end of the present school year. This decline is due to the exodus of the Jewish population to the State of Israel. Jewish children remaining in Tripoli (there are none elsewhere) will be able to choose between the Libyan and the Italian schools.

Maltese Schools

The Maltese schools also will probably have disappeared by the end of the present school year, as the Maltese community has not sufficient means to keep

up a school, and has not managed to secure outside assistance. Most of the Maltese children now go to Italian schools.

Adult Education

Adult education is practically non-existent, except in Tripoli: it consists mainly of night classes for the teaching of English. There are 903 students following these courses; they are grouped in 40 classes, divided into four sections of different levels; they buy their own books and pay a fee which more or less covers the teachers' remuneration. Half of them are Libyans and half Italians. The Ministry of Education is at present considering the possibility of organizing a preparatory course for students wishing to enter British universities.

Further, the ministry is arranging for the printing of books composed in accordance with the Laubach method. As soon as they are ready, a campaign against illiteracy will be launched amongst the Arab population.

Fellowships for Study Abroad

In addition to technical assistance fellowships granted to civil servants already occupying posts, the Tripolitanian Government has sent several students abroad, almost all of them to Egypt. Under the present system, they have to spend one year in an Egyptian secondary school in order to prepare for the university entrance examination. Hitherto, the Ministry of the Interior and not the Ministry of Education has been responsible for paying the living expenses of these fellowship-holders. Of the students receiving grants from that body, there are 38 at secondary schools in Cairo, 9 at Victoria College (Alexandria), 11 at Egyptian universities, 18 at El-Azhar University, 1 at the French Institute in Cairo, and 1 at a British university. Many Tripolitanian students have gone abroad at their own expense: there are 4 at Egyptian universities, 8 at Italian universities, 56 at El-Azhar, 62 at Egyptian secondary schools, 3 have gone to Italy to carry out secondary studies, and 4 are at the British Council in Egypt. The Tripolitanian Government intends to give grants to 96 students in 1952-53, as opposed to 78 this year.

Budget

Annexed hereto (Appendix VI, p. 60) are details of the 1951-52 and 1952-53 budgets, communicated to me by the Ministry of Education. The sums appropriated for education during the period from 1 April 1951 to 31 March 1952 amount to £327,105 out of an ordinary expenditure budget of £2,249,000. To this should be added some £20,000 appropriated for the repairing of old buildings or the construction of new ones. The budget estimates for the period 1 April 1952 to 31 March 1953 amount to £368,530, to which should be added some £40,000 for the repairing or construction of buildings. With such a modest budget, it is obviously impossible to make many innovations and there is thus an urgent need to raise additional funds, outside the ordinary budget.

EDUCATION IN CYRENAICA

Organization of Educational Services

These services come under the authority of a Minister of the Cyrenaican Government who, at the time of my visit, was also Minister of the Interior. The

Minister is assisted by a British Adviser who deals with all purely educational matters, and by a Libyan director who is responsible primarily for administrative and financial affairs; the latter is assisted by a deputy-director, also a Libyan. The teaching of English is supervised by a British civil servant. A British teacher has been appointed to the ministry to assist in all administrative matters dealt with in English. Lastly, there is a chief secretary, who is a Palestinian, and nine secretaries, including one Palestinian and one Egyptian.

Three inspectors, residing respectively at Benghazi, Al-Marj (Barce) and Derna, are responsible for local educational administration; when I visited the country, two of them were absent from Cyrenaica on mission.

The teaching staff includes 75 foreigners, the majority of them Egyptians, who receive an average annual salary (all allowances included) of £648, and about 400 Libyans, whose annual salaries range from £96 to £384, the average salary being £168 per annum.

Primary Education

Theoretically, primary education in Cyrenaica, as in Egypt, is divided into elementary education (the first two years of study) and primary education in the true sense (four years of study). In reality, the elementary schools, which will number 50 at the end of the present school year, almost always provide for the first four years of study. The primary schools alone allow for a fifth and sixth year; there are twelve of them, including three girls' schools.

Numbers of pupils are as follows (in round figures): schools and classes for girls,¹ 1,200; boys' schools, 12,000 (7,000 of them being at elementary schools).

Owing to the fact that the population is scattered and nomadic, some primary—and even elementary—schools have a boarding-house, the elementary boarding-schools (four first years) at Gubba and Gierdes al-Abidi each house 80 pupils; the two primary boarding-schools (six years) at Al-Abiar and Marsa Susa (Apollonia) take in 480 pupils (360 of them being at Al-Abiar). Both the boarding-schools which I was able to visit (Bubba and Al-Abiar) are well run and popular, but they are very expensive; together with the secondary boarding-school at Benghazi and the agricultural boarding-school at Magdalena, they absorbed a quarter of the Ministry of Education's ordinary budget in 1950 and a fifth of it in 1951.

The Egyptian primary school curriculum is followed, without modification, even for history and geography; English is therefore taught from the fifth year of primary studies onwards. In order to carry out this programme, the Cyrenaican Government has enlisted the services of foreign teachers, Egyptians for the most part, who teach the last two years of the primary curriculum. Thus, at the Al-Amir School at Benghazi, 8 of the 21 teachers (5 of them Egyptians) are foreigners; at Derna, there are 4 foreign teachers (all Egyptians) out of the 36 teachers at the two boys' schools; at Al-Abiar, 5 foreigners (3 Palestinians and 2 Egyptians) out of the 13 teachers at present employed; while at Adjedabia, 1 of the 7 teachers is a Palestinian.

As a general rule, teaching continues to be purely theoretical and is of indifferent quality, at least in the first four primary classes. The only school garden which I saw—very well kept, by the way—was at Gubba. The physical

¹ A few classes for girls have been started in certain boys' schools, pending a sufficient increase in numbers to warrant the creation of a school.

training classes which I attended at Al-Abiar and Derna did not fulfil their proper purpose. All this is not at all surprising for, as in Tripolitania, the majority of Libyans teaching today in Cyrenaica are young, have only had a primary education, and have not undergone any training as teachers.

The Ministry of Education has tried to improve this state of affairs in two ways:

1. By establishing a training section at the Benghazi secondary school; in the morning, the pupils attend the general education classes held in the school during the first year, and in the afternoon they receive training in teaching. This training course was attended by 35 pupils during the year 1950-51.
2. By organizing at Marsa Susa (Apollonia), since 1950, a holiday training course for teachers already occupying posts; the main subjects taken are history and geography, physical training, handicrafts, Arabic and English.

The ministry further proposes to set up in the near future a regular teachers' training centre at Benghazi, where 50 young people will be able to follow a year's course of intensive training.

Secondary Education

There is one boys' secondary school at Benghazi. It contains 280 pupils, 160 of them boarders (90 of these boarders coming from Derna). These pupils are at present divided into four school years (three sections for the first year, three for the second, two for the third, and one for the fourth). The Egyptian curriculum, which is followed in the school, provides for a fifth year; promising pupils at present go to Egypt to do this fifth year, for the Egyptian Government has not, up till now, recognized Libyan examinations as qualifying students for entrance to Egyptian universities, and fifth-year pupils of the Benghazi school would have had to do that year again in Egypt. The Egyptian Government however has recently modified its attitude towards Libyan examinations, and a fifth-year class is shortly to be instituted at Benghazi.

The headmaster of the secondary school is a Libyan with Egyptian university degrees; his staff consists of 16 teachers (11 Egyptians, 4 British, and 1 Libyan). The school (which occupies a former Italian building, now reconditioned) is short of equipment; like other schools, it is especially in need of textbooks; the general library still has very few books and the scientific equipment is rudimentary, so that the pupils cannot do the practical work included in the elementary science curriculum.

Fellowships for Study Abroad

I have just mentioned that fifth-year secondary school pupils carried out their studies in Egypt; there are 13 of them at Helouan. Two other Cyrenaican students are following courses at Victoria College, Alexandria. Further, seven students are taking courses at the Fuad I University in Cairo—three at the Faculty of Medicine, two at the Faculty of Law, and two at the Faculty of Civil Engineering (Kulliat-al-muhandisi'n); three are following courses at the American University in Beirut (one in civil engineering, one in economics, and one in financial sciences); and one is taking a course of law at London University. Lastly, the Cyrenaican Government gives grants to nine students working at the traditional University of Al-Azhar.

Education for Girls

The only girls' schools properly so called, are at Benghazi (two) and Derna (one). They are, however, very large establishments. At the Al-Amira school at Benghazi, there are 556 pupils (470 for the first two years of study and the nursery school; and 86 for the last four years); the Derna school has 350 pupils (approximately 35 of them for the last four years and 315 for the first two years). These figures show that the schools have only recently developed, but that there is now a very strong movement, in the country's two principal towns, in favour of women's education.

The three headmistresses are Libyans. I saw two of them; the first, who is fairly elderly, studied many years ago at the Teachers' Training College for Women at Istanbul; the other is a young woman and a graduate of Fuad I University. They are assisted by Libyan and Egyptian teachers (three Egyptians at Derna and six at Benghazi). The standard of teaching is good; of all the physical training classes that I watched during my visit, the one at the girls' school at Derna was certainly the best; I also thought the needlework classes very sensible and useful.

During the year 1950-51, the Ministry of Education organized a girls' secondary class at Benghazi, which is attended in the afternoons by the majority of the Libyan women teachers holding posts in the town. This class looks as if it ought to become the nucleus of an establishment for girls' secondary education, which should later lead to the creation of a girls' secondary school and a teachers' training centre for women. The class is attended exclusively by local girls, and families at Derna are still strongly opposed to the idea of sending their daughters as boarders to Benghazi.

Community Schools

Besides the public schools, there are four so-called 'community schools' at Benghazi:

A Jewish school, likely to close down owing to lack of pupils.

A Greek school with two classes.

The staff of both these schools is paid by the government.

A school of the Italian Friars of the Christian Doctrine, which follows the Italian curricula, with the addition of Arabic as a compulsory subject. The school is run by four friars and is attended by some 90 pupils.

A school run by Italian nuns, with three nursery school sections and three primary classes (Italian curriculum, with the addition of Arabic as a compulsory subject); it is attended by over 150 children of both sexes, including a number of Arab children.

The Cyrenaican Government makes an annual grant of £60 to each of the teachers in these two schools. Both establishments are well housed and equipped.

Evening Classes for Children and Adults

There are two series of evening classes at Benghazi:

1. English lessons organized by the Ministry of Education; as I saw for myself, a great deal of good, hard work is done at these classes.
2. Courses of primary studies, organized on a voluntary basis by a Libyan association. Benghazi teachers come every evening and give lessons,

without claiming any remuneration. Their pupils are either adults, mostly young (civil servants or employees of private firms), or children of school age who do a little paid work during the day and come for lessons in the evening. The government has arranged for the classes to be held in the Al-Amir school. At the beginning of the school year, there were nearly 400 pupils and they seemed to me to be extremely hard-working and keen to learn. The government supports this voluntary effort by periodically showing the pupils educational films.

Budget

The Ministry of Education's budget for the year 1951-52 totalled £157,000. The draft budget for 1952-53 amounts to £273,000, which represents a considerable increase. Details of the budget estimates for the year 1952-53 are given in Appendix VII, p. 61.

EDUCATION IN THE FEZZAN

In the Fezzan, the difficulty is to recruit foreign teachers who are prepared to stay long enough to produce lasting results and to train Fezzanese teachers, who are at present lacking throughout the territory. In education, the administration, which is composed of a Fezzanese minister and a French director (the latter being at the same time a headmaster), has constantly had to deal with teachers who leave after one school year spent in this rough and isolated country. The history of education in the Fezzan is thus one of schools being closed owing to lack of teachers, a year after their opening, and of constant attempts to re-establish them.

However, the situation seems to be improving; there are now a few schools really packed with pupils, such as the school at Ghadames which is attended by 105 pupils out of a total population of less than 1,000 inhabitants.¹ Two boarding-schools have been opened at Dar el-Bey (Sebha) and Brach, having 27 and 20 boarders respectively. It has been possible to send a few young Fezzanese to Algeria—four of them to Algiers to receive additional general instruction before learning to teach, two to the experimental station at Biskra to follow a practical agricultural course, four to follow a vocational training and rural crafts course at Tlemcen, and, lastly, two to follow private courses of Arabic in Algiers.

For French, the curriculum is that of Franco-Arab schools in North Africa. I found that the level reached in Arabic was quite satisfactory for pupils who had only been studying this language for one year. Adjoining the Brach school is a small garden where the pupils receive practical instruction in elementary agriculture. Similar instruction will be given at Sebha as soon as it is possible to irrigate the land.

There is no girls' school, and no girls attend boys' schools. It appears that the idea of educating girls might possibly be accepted at Mursuk and Djedid (near Sebha) if a foreign woman teacher could be found, who would stay long enough to train a few Fezzanese women teachers. However, efforts to find such a rare specimen have so far failed.

¹ A list of schools, and school attendance figures, at the beginning of 1951 is annexed hereto (Appendix VIII, p. 61).

French military doctors exercise regular medical supervision. Further, each school has a canteen where all the day-pupils have their midday meal; they are merely asked to bring a receptacle for their food, a spoon, and a few palm tree branches to make a fire for the cooking. The majority of the buildings are former Italian constructions; however, many schools have been built since 1947, in particular the Dar el-Bey (Sebha) boarding-school.

Adult education courses are held whenever possible, i.e. when there is a sufficient number of candidates. Special courses have been organized at Sebha for a few young men who are training to become wireless telegraphists. It is planned to set up a cultural centre, with a library, conference room, wireless set and cinema apparatus, at Dar el-Bey (Sebha).

The draft budget for 1952 is annexed hereto (Appendix IX, p. 62).

CONCLUSION

The foregoing brief account of the situation gives an idea of the considerable effort to advance education that has been made both by the Libyans and by the Administering Powers. It is true that adequate buildings, mostly constructed by the Italians, existed before 1943; but they were, in many cases, damaged or ruined during the war. There also existed a number of reasonably competent Libyan teachers, who are still occupying posts today, especially in Tripolitania. However, these teachers were not numerous enough to meet present needs and they had not been trained for the tasks which they are henceforth expected to carry out. There were thus immense difficulties to be overcome and the results so far obtained can, on the whole, be considered fairly satisfactory.

Dealing first with the most urgent problems, the authorities have done their best, with the means at their disposal, to provide the people of the three provinces with the educational opportunities that they desired, and to make up for time lost during the war years (almost all schools in Libya were closed from 1940 to 1943). Hence the twofold policy of bringing teachers from abroad and recruiting as many Libyan teachers as possible. In recruiting foreign teachers, budgetary difficulties were soon encountered; as for the recruitment of Libyans, this policy, although essential at the beginning, was bound in the long run to have serious disadvantages. The standard of teaching declined as the number of inexperienced teachers increased, and the latter, having no great professional ability, were ill-paid and worked without enthusiasm or hope.

These disadvantages were felt everywhere, and a general effort was made to improve the situation by trying in some way to train better qualified teachers. This training of local teachers, which was started only a short while ago, has not yet had time to produce any noticeable results. In Tripolitania, which is the most thickly populated province of Libya and the one where education has developed most, posts have been established for assistant inspectors to help the inexperienced teachers in supervising their pupils. The idea was a good one and has certainly produced some valuable results; nevertheless, many of these assistant inspectors do not seem to have had enough personality to impose their authority on their junior colleagues.

All this points to the fact that the teachers at present employed in schools are finding their task too heavy, and that it is imperative to strengthen them.

Several other problems have been only partially solved, or not solved at all—for example, those of girls' education, the education of nomads, adult

education, and vocational training. Lastly, Libyan education is, on the whole, tending to become too academic, which is not at all what the country requires; handicrafts are very little developed, and specialized training is practically non-existent. These remarks should not be taken to imply that the authorities are to blame; I have merely tried to describe the actual situation, which they themselves are aware of and are endeavouring to improve.

In short, the present educational system in Libya seems to me to be the outcome of reforms introduced into the country before 1940, of the considerable efforts which have since been made, and of the Libyan people's desire to provide their children with an education which will enable them to lead fuller lives. It would appear unnecessary to make any radical changes in the basic structure of the educational system during the next few years; but its framework, i.e. the teaching staff, should be strengthened and improved, firstly in quality and afterwards in quantity. After the post-war period of 'growth', the most important thing now is to consolidate the results obtained during that period, in order to provide a sound basis for future development.

RECOMMENDATIONS FOR THE FUTURE DEVELOPMENT OF EDUCATION IN LIBYA

PRELIMINARY REMARKS

Before passing on to a detailed consideration of the recommendations put forward, it seems essential to have a clear idea of the circumstances in which the development of education in Libya will have to take place, and to draw the appropriate conclusions.

All the reports so far drawn up by expert missions from the United Nations and the Specialized Agencies agree that Libya's resources are extremely limited, but that they could be considerably increased if the inhabitants of the country made better use of them. A vast educational programme has to be launched, covering both the age groups now active and, more particularly, the rising generation.

The recently promulgated Libyan Constitution makes 'elementary' education compulsory for children of *both sexes*. Although this provision cannot be fully enforced at first, it must be the continual aim of any scheme for the development of education in Libya. Considerable difficulties are bound to arise in its practical implementation, not only on account of the country's slender resources, but also because the peoples of Libya have very varied modes of life and it will therefore be necessary for education to assume a variety of forms. The teaching of children living a nomadic or semi-nomadic life, for example, raises intricate problems.

It is clear from what has been said above that the educational and cultural level of Libya is extremely low. It is out of the question, therefore, to train up at the outset an *élite* able to cater for all the country's needs. Provision will have to be made for several stages, before an educational system suited to the country's needs and potentialities can come into full operation.

The budgetary resources which can be allocated to education will necessarily be very small, whatever their source. It is imperative therefore only to launch

Photo Unations



A Tuareg of Southern Libya.

Photo Ilse Steinhoff



Young Arab of Cyrenaica.

In the foreground—grass planted to hold sand



Photo Ilse Steinhoff



A nomadic family.

Photos Ilse Steinhoff

A herd near the ruins of the Temple of Apollo, Apollonia, Cyrenaica.



schemes which are certain of success and not to make premature or doubtful experiments, and to keep expenses to a minimum even in the case of projects that are recognized to be essential. Any extravagance, anything unnecessary, must be severely shunned; effectiveness and soundness will have to be the constant watchwords of those responsible for education.

Having regard to the federal structure of Libya, there will inevitably have to be three educational systems, of different sizes and probably different standards. Nevertheless, if the Libyan State is to survive, there must be some harmony between the three systems, arising not only from the existence of an appropriate federal body but also from the spirit with which each of them is imbued. None of the three should therefore be discriminated against, and each should be able to train a proportion of the *élite* essential to the smooth functioning of each province and of the State as a whole.

Lastly, on account of the general structure of the educational system, the recommendations which follow will, for the most part, only be able to take effect from October 1952, that is to say in the school year 1952-53, at any rate as far as staff and the organization of classes are concerned. The conclusions arising from this report must on no account interfere with the present school year (1951-52).

GENERAL QUESTIONS

General Structure of the Educational System

The Egyptian curriculum generally used in Libya is, on the whole, satisfactory. At most it would be necessary to consider a few alterations of detail, some of which have already been made, particularly with regard to history and geography.

The two-shift system for classes is in general use: that is to say, the same buildings accommodate two different groups of pupils, one in the morning and the other in the afternoon. It is an unsatisfactory arrangement, but one which will undoubtedly have to continue for many years, since it saves heavy expenditure on buildings and equipment.

Nevertheless, where this system can be avoided, I recommend that classes should be held in both the morning and the afternoon, instead of all being crowded into half of the day as they are at present. It is a fact well known to teachers that the ability of children, and even adolescents, to maintain concentration is very limited. It is consequently much more reasonable to divide the day's work in two with a long rest (of at least two hours) at the end of the morning. This would do away with the end of the morning classes, in which most of the pupils are too tired to derive proper benefit from the lesson; my own personal experience in France during the war enables me to state this most emphatically.

There are only a very few kindergartens. Many Libyans regret this, and I sympathize with them. But in view of the extent of educational requirements and the scarcity of present resources, I think it will be a long time before kindergartens can be developed except by way of experiment, and with a view to evolving methods suited to Libya for the time when the provision of kindergartens can become a general institution.

Primary education is usually divided into two courses: (a) the first four

years' course, during which the children chiefly learn to read, write, count, and express themselves with increasing accuracy; (b) the next two years' course, during which the range of subjects is considerably extended, and history, geography, elementary science, and even a foreign language, are included in the syllabus.

The first course no doubt corresponds to what the Libyan Constitution calls 'elementary education'. The intention is probably that every Libyan child should at least follow the first four years' course. If it were supplemented by adult classes and cultural centres in which children possessed of this slender stock of knowledge were able to keep it fresh or even to add to it, this elementary education might perhaps be sufficient. But it would also be desirable for the children to follow the later two years' course, so that their knowledge may be more soundly based.

In theory, children begin attending school at six years of age. A child who goes through his primary education without interruption ought therefore to finish it at the age of 12; but for a long time to come the average age for starting school will have to be raised two or three years, so that many children will be at school from 8 or 9 to 15.

As things stand at present, there are two serious gaps in Libyan primary education: (a) physical training is not properly taught, as I have been able to see for myself; (b) practical work (particularly in regard to gardening and agriculture) is badly neglected except in very rare cases. This is because the teachers have not had the necessary training.

I recommend, therefore, that the Technical Assistance Department of Unesco should send an expert to work out satisfactory methods of physical training with the Libyan Government, and another expert to adapt the periods of practical work to the agricultural bent of the country.

Secondary educational establishments are at present of three kinds: (a) secondary schools proper; (b) teachers' training centres; (c) technical schools.

The secondary schools proper and teachers' training centres must be developed; we shall revert to this later. The technical schools require thorough reorganization, an account of which will be given further on. The institution of supplementary agricultural courses in rural areas might be envisaged, at which in addition to further general education pupils would for two or three years receive practical training which would enable them to make a more effective contribution to the agricultural activities of their region. These supplementary courses should be very markedly regional in character.

The theoretical age for entrance to secondary schools is 12; for a long time yet it must be expected that most pupils will not start till 14 or 15. This is based on what I observed while inspecting schools.

Higher education can only be a very far-off ideal for Libya. For several decades, probably, Libyans ready for the university will have to go abroad, since it will be some years before Libya has enough money, qualified teachers, and students for there to be any question of founding a university.

*Training of Teaching Staff (Men)*¹

This is the first problem to be dealt with, since all the others depend upon it, and in addition the quality of the existing staff is on the whole far from satisfactory.

¹ Education for girls and the training of women teachers will be dealt with separately.

In the first place, for some years yet intending secondary teachers (responsible for general education and for technical training) will, in principle, have to be trained outside Libya. The goal to aim at, therefore, is to train on the spot, as well as possible, all teachers for primary schools and perhaps some teachers for the two junior classes in secondary schools.

The only institutions at present in existence to give this training are the Sidi Mesri teachers' training centre and a training section at the Benghazi secondary school. Such being the case, my recommendations are as follows:

I. The establishment of an independent teachers' training centre at Benghazi from 1 October 1952.

The students attending it might in the first instance be of two kinds: (a) men already teaching, who would be seconded to the centre for a year for further general education and, in particular, further technical training; (b) students who have passed their primary leaving examination, who would spend three years at the centre, receiving further general education and a technical training spread over the three years' course.

A school annex attached to the centre should be set up as soon as possible, to enable intending teachers to acquire practical teaching experience in the most favourable conditions.

This would involve the following:

1. During the year 1952-53 the teachers receiving training at the centre would be replaced by students from the present training section of the secondary school. Only very few new schools or classes could be contemplated.
2. After October 1953, the staff of schools in Cyrenaica would be augmented by teachers who had attended the course at the centre the previous year. A few new schools could be contemplated, but a large proportion of the newly trained teachers would have to be used to replace assistant teachers who are not giving satisfaction, of whom I am informed there are a great number.
3. The first batch of young students to complete the three-year course at the teachers' training centre would not be ready till October 1955. Only then could the Government of Cyrenaica consider further development of primary education.
4. Four categories of expenditure would have to be provided for in the first year:
 - (a) Staff: a director, being an expert provided by Unesco, from 1 August 1952; five experienced teachers, nearly all recruited abroad, who would be paid either by the Government of Cyrenaica or by the Federal Government (this question will be examined in the section dealing with the Federal Government): average annual salary £800; $£800 \times 5 = £4,000$; four teachers for the four classes at the future school annex: average annual salary £250; $£250 \times 4 = £1,000$, to be paid by the government; domestic staff, paid by the government; annual additions to the centre's staff: two new teachers a year, $£800 \times 2 = £1,600$, i.e., at the end of three years, an expenditure of $£4,000 + £3,200 + £1,000$ (salary of the director when the Unesco expert leaves) = £8,200.
 - (b) Buildings. No estimate can be given, as the cost will depend on the premises that may be allocated to the centre. It may perhaps be possible to find a building in good condition which it would not be very expensive to convert. In any event it appears that this initial expense can be borne by the Libyan Development Agency.
 - (c) Equipment. The centre should have from the outset: a library: £500

for the first year; two laboratories (one physics and chemistry laboratory and one biology laboratory): £3,000 for the first year; sports equipment: £300 for the first year.

The expenses relating to the library could be borne by Unesco, under the head of demonstration equipment for the expert appointed as director of the centre.

The expenses relating to the laboratories and sports equipment could be borne by the Point Four Agency (LATAS, the Libyan-American Technical Assistance Service).

Additional funds and equipment could be provided by the Unesco Voluntary Assistance Service.

- (d) Cost of boarders. It is difficult to give a figure in advance without knowing the premises used. But if there are 60 students at the centre (30 men already teaching and 30 young students) there will be about 40 boarders, the remaining 20 living at Tripoli. Accepting as correct the figure of £37 per student per year which has been given me, we have $£37 \times 40 = £1,480$. To this must be added, for two years, two new batches of young students coming in: a further £1,480. In the third year boarding expenses would, therefore, be £2,960, to be met by the government.

II. Additional equipment for the Sidi Mesri centre: (a) equipping of two laboratories: £3,000; (b) additional sports equipment: £300; (c) purchases of books for the library: £200. The cost of (a) and (b) could be borne by LATAS (the Point Four Agency) and of (c) by Unesco.

III. The establishment of a four-class school annex attached to the Sidi Mesri teachers' training centre.

This would entail the following expenditure:

1. Staff: four teachers at an annual salary of £250, paid by the government: £1,000;
2. Buildings: conversion or construction and furnishing of four classrooms within the Sidi Mesri centre's grounds. It is impossible to determine the cost without going into the matter thoroughly, but it could be borne by the Libyan Development Agency.

IV. Establishment of a senior training section to train teachers for the two senior primary years and the two junior secondary years.

The Egyptian curriculum, adopted in Tripolitania and Cyrenaica, makes a sharp distinction between the first four and the last two years of primary education; during the last two years the range of subjects is extended and a modern language is included in the syllabus. It is essential, therefore, that the teachers giving this instruction should have received a sufficient training.

Teachers from Tripolitania and Cyrenaica could be trained together in an establishment, directly under the Federal Government, which could be set up at Sidi Mesri, where there is plenty of room and where it would be possible to use the existing equipment.

A competitive entrance examination would be held, to begin with on the subjects taught in the two junior secondary years. It would be desirable for the examination syllabus to be extended later to cover the subjects taught in the senior secondary year. Thirty students could be accepted (20 for Tripolitania,

10 for Cyrenaica, and later a few for the Fezzan, these figures being subject to annual revision in the light of requirements). Those accepted would take the centre's courses for three years, and on leaving the centre would become members of a special body of teachers for the two senior primary classes and perhaps, if sufficiently good results were obtained, the two junior secondary classes.

This project, which should be put into effect as soon as possible and at latest by 1 October 1953, would entail the following expenditure:

1. Staff: a director, £1,000 per annum; three instructors, £800 per annum: $£800 \times 3 = £2,400$; annual addition of two instructors for two years after the senior section is set up: $£800 \times 2 = £1,600 \times 2 = £3,200$.

After three years the cost of teaching staff would be: $£1,000 + £2,400 + £3,200 = £6,600$. This would be borne by the Federal Government.

2. Cost of boarders. According to the figures I have been given by the Ministry of Education, the cost of a boarder at Sidi Mesri centre (food, books, materials) is about £37 per annum. For 30 students an expenditure of £1,100 must therefore be envisaged for the first year, and at the end of three years, when the senior section is at full strength, an expenditure of £3,300, which should be borne by the federal budget.
3. Buildings. It is impossible to give an exact figure for this item, since the establishment of the senior section would certainly involve alterations which I cannot estimate, in the use of the existing buildings. At any rate, certain buildings now half in ruins will have to be repaired. The work should be begun as soon as possible, and could be paid for by the Libyan Development Agency.
4. Equipment. Part of the equipment now in use or about to come into use at the Sidi Mesri centre could be used by the centre and the senior section jointly; this applies to the laboratories, the library and sports equipment. Consequently only additional equipment would be required, and the cost of that could only be calculated when the project is put into effect.

V. Agricultural training for teaching staff. It would be desirable for intending teachers who are to work in rural schools with school gardens to receive adequate training.

I propose, therefore, that part of each batch of trainees leaving the Sidi Mesri and Benghazi teachers' training centres should be invited to attend a year's course at the agricultural schools to be set up at Sidi Mesri and at Magdalena (see below). To prevent the young teachers from regarding this course as a setback to their career, it will be necessary: (a) for them to draw, during the year of the course, the salary they would have drawn had they been given a post in a school, less maintenance; (b) for them to receive thereafter, and throughout the period of their service in a rural school, a technical-qualification bonus, which would give them an inducement in the first place to attend the agricultural course and thereafter to devote at least part of their career to work in a rural school.

It will only be possible to put this project into effect when the future schools at Sidi Mesri and at Magdalena have reached a sufficiently advanced stage. If the establishment of those schools is delayed, it would be advisable to provide the Sidi Mesri and Benghazi training centres with a school garden and some light agricultural equipment.

VI. Organization of a holiday course at Sidi Mesri for teachers already in service who are anxious to improve their qualifications. The cost of 50 such students for two months would be about £344 plus instructors' fees (to be determined). This could be borne by the Libyan Development Agency.

Summary of expenditure in 1952-53 if the foregoing recommendations are adopted:

1. *Libyan budget (federal budget or provincial budgets according to the arrangement adopted):*

Salaries of the Benghazi teachers' training centre staff (excluding the director)	£ 4,000
Cost of boarders at the Benghazi centre	1,480
Salaries of staff at the Benghazi school annex	1,000
Salaries of staff at the Sidi Mesri school annex	1,000
Salaries of the director and staff of the Sidi Mesri senior section (if the project can be put into effect by 1 October 1952)	3,400
Cost of senior section boarders (subject to the same condition)	1,100
Total	£11,980

2. *Libyan Development Agency:*

Conversion or construction and furnishing of premises for Benghazi teachers' training centre and its school annex: Impossible to calculate at present.

Conversion and furnishing of premises for the school annex of Sidi Mesri teachers' training centre: Impossible to calculate at present.

Conversion and furnishing of premises for the senior section of Sidi Mesri centre: Impossible to calculate at present.

Holiday course at Sidi Mesri: £344 plus instructors' fees.

3. *LATAS (Point Four Agency):*

Equipping laboratories at Benghazi teachers' training centre	£ 3,000
Sports equipment at that centre	300
Equipping laboratories at Sidi Mesri teachers' training centre	3,000
Additional sports equipment at that centre	300
Total	£6,600

4. *Unesco Technical Assistance Department:*

Salary of expert to set up and direct the Benghazi teachers' training centre.	£
Foundation of a library at Benghazi teachers' training centre	500
Additions to the Sidi Mesri teachers' training centre library	200
Total (excluding expert's salary)	£ 700

Education for Girls

The importance of education for girls is obvious. An educated woman will bring up her children in an enlightened way, and when they eventually go to school they will already have acquired many habits at home which they have at present to be taught in the schoolroom. Moreover it is important that the young men now being educated should later on be able to find wives with an

intellectual training similar to their own, and that conversely the future wives should not suffer from a sense of being in an inferior position in their homes.

However, education for girls has not as yet advanced very far in Libya. This backwardness is due, not to Moslem law itself, but to the traditional interpretation given to that law in Libya, as in the rest of North Africa. The difficulties arising in connexion with education for girls are consequently not merely budgetary but psychological, and can only really be overcome by a woman.

Before going into the question in detail, therefore, I recommend in the first place that Unesco should appoint a woman expert to deal effectively with all the problems relating to education for girls. This expert should have a good knowledge of Arabic, because she will frequently have to meet the women teachers now serving, children (most of whom know nothing but Arabic) and mothers of families, who of course can and should provide very valuable information. Her task would be, it appears to me, to make the most effective use of the existing schools, by adapting the educational programmes as well as possible to the county's family life; to take preliminary measures for the development of girl's education, which should gradually be brought up to the level of boys' education; and to plan a programme of 'extension' education for mothers of families, in co-operation with the expert who will be requested below for adult education.

The second point to be considered is that girls' education cannot continue to expand unless there are better teachers than at present. In Tripolitania an important step has been taken in this direction with the foundation of the women teachers' training centre at Tripoli. The centre should be expanded until it is able to train three full year-groups of young women simultaneously. Enlargement of buildings and increase of staff must of course be paid for out of the local budget. But the centre should also be provided with laboratories, a library, and sports equipment. The cost of these items may be estimated as follows:

<i>Item</i>	<i>Cost</i>
Equipping two laboratories	3,000
Nucleus of a library	500
Sports equipment	300
Total	<u>3,800</u>

It would be desirable for LATAS to assume responsibility for this expenditure.

In addition, it would be advisable for cookery to be added to the domestic science teaching at present given at this centre. The equipment is there, but it would be necessary for the centre to be able to buy, each week, materials for preparing the meals. This expenditure would, it seems, necessarily devolve upon the local government.

This centre is working for the future; it might perhaps be able also to help improve the present situation by arranging a summer refresher course for the best women teachers now in service. This would entail two kinds of expenditure:

1. The cost of boarding 16 teachers for two months: £110.
2. Additional fees for the instructors: it is impossible to give an exact figure,

because the number of instructors would depend on the programme planned.

This expenditure, which is not provided for in the Tripolitanian budget appropriations for education, could be borne by the Libyan Development Agency.

The Cyrenaican Government plans to establish, in October 1952, a women's section of 10 members, attached to the teachers' training centre that is to be founded at Benghazi (see above). This provisional measure is welcome; but it is necessary to look ahead to a time when, as girls' education develops, this section will have to become independent and include a boarding establishment for young women from Derna and elsewhere. That will entail expenditure on initial establishment, equipment and staff which cannot yet be calculated because the project is a long-term one.

It is necessary also to envisage the time, no doubt still distant, when it will be possible to set up a senior training section similar to the one proposed for men teachers, to train women teachers for the two senior primary years and the two junior secondary years.

Lastly, it will be desirable to consider, during the next years, founding girls' secondary schools separate from the teachers' training centres, in the first instance at Tripoli and Benghazi.

Summary of expenditure for the school year 1952-53:

1. *Local Budgets:*

Expansion of the Tripoli teachers' training centre (as provided for in the budget).

Increase of staff at that centre (as provided for in the budget).

Maintenance of more boarders (amount not yet fixed).

Sum required to start instruction in cookery (amount to be determined).

2. *Libyan Public Development and Stabilization Agency:*

Arranging a holiday course for women teachers already serving in Tripolitanian girls' schools.

Maintenance of 16 young women for two months, £110.

Additional fees for staff (exact sum to be determined, according to how the project is executed).

3. *LATAS:*

Equipping the Tripoli teachers' training centre, £3,800.

4. *Unesco:*

Salary of a woman expert in girls' education and in kindergartens.

Further, Unesco's Voluntary Assistance Service could provide a not inconsiderable amount of additional equipment.

What results should be expected if these projects were put into effect?

The first year-group of students at the Tripoli centre, 26 in number, will be fully trained by 1 October 1953. It must be assumed that a number of young women (at least one-third) will for one reason or another not go into teaching. The Ministry of Education will therefore only be able to count on a maximum of 15 new women teachers. In 1954 the second year-group, a larger one, will yield perhaps 30 teachers. These 45 young women from the two groups will hardly suffice to replace existing teachers who are not giving satisfaction. Consequently, only from 1 October 1955 will it be possible to contemplate creating new classes, at a rate corresponding with an intake of 25 or 30 new teachers a year.

The position in Cyrenaica is different. The existing schools have a much better teaching staff than those in Tripolitania, so that it will be possible for nearly all of the first 10 young women trained in the women's section of the Benghazi centre to be used, after their three year's study, for the establishment of new classes, provided of course they all want to teach. Nevertheless, if the aim is to obtain properly qualified staff, it will not be possible to start forming new classes until 1 October 1955.

No informed recommendations can be made for the Fezzan, since the first thing that has to be done is to find a woman educationalist willing to spend the necessary time there to train good pupils who would then teach in their turn. At the moment, finding such a person would be largely a matter of luck.

General Rate of School Expansion

We have just seen that, in the case of girls' education, no real progress can be expected before the school year 1955-56; consequently, until that date, the number of illiterate women will increase because the population is increasing.

In the case of the boys, the position is less serious on the surface, for the first year of students to pass through the Sidi Mesri centre (29 students) will be able to start teaching on 1 October 1952; the second, which will be ready to start teaching on 1 October 1953, consists of 58 students; and the third, to be ready on 1 October 1954, of 84. Moreover, if the Benghazi centre is opened on 1 October 1952, its first students will be able to begin teaching on 1 October 1955. That is also the date at which the first young Fezzanese trained in Algeria will probably be able to take teaching posts. But it must not be forgotten that most of these well-trained young teachers will in the first instance be replacing bad teachers; it is unwise, therefore, to contemplate any considerable improvement in boys' education before 1955. The best that can be done during this period will be to prevent illiteracy increasing as a result of the natural increase in the population. For this it would be necessary—reckoning the annual population increase to be 11 per 1,000, the figure given by Dr. Shanawany¹—to expand the annual intake into boys' schools by about 1,400 in Cyrenaica, between 3,500 and 4,000 in Tripolitania, and about 400 in the Fezzan. This means that, reckoning on classes of 40, it will be necessary to recruit each year 100 temporary men teachers in Tripolitania, 35 in Cyrenaica and 10 in the Fezzan and to find the necessary premises, that is to say (using the two-shift system for classes) 50 classrooms in Tripolitania, 17 in Cyrenaica and 5 in the Fezzan. These figures must in reality be reduced to allow for the 'wandering' population, for whom special provision must be made. Even if the figures are decreased by two-thirds for Cyrenaica and by one-third for Tripolitania, they remain very large and show how great an effort Libya has to make simply to prevent the proportion of illiterates from increasing. In order to reduce illiteracy a little, Tripolitania will have to train 100 new primary teachers a year, Cyrenaica 30 and the Fezzan 12, the problem of nomads being dealt with by other means.

Education of Nomads

This is mainly a problem for Cyrenaica, where the percentage of nomads is

¹ El-Shanawany, M. R., *Report and Recommendations regarding the Organization of the Vital Statistics Services of Libya* (A/AC.32/Council/R.167), United Nations, New York, 1951, p. 107.

very high (70 per cent according to Dr. Shanawany);¹ but it cannot be overlooked by Tripolitania where, according to the same report there is a wandering population (nomads and semi-nomads) of 200,000. In the Fezzan, the wandering population is only 13,000.

Cyrenaica has, for the time being, adopted the solution of primary boarding schools. This, even on a small scale, is extremely costly; it has the further disadvantage of removing the children from their traditional environment and possibly turning them into socially uprooted individuals. The advisability might therefore be considered of founding 'nomad schools' (at least for elementary teaching) similar to those existing in the French Sahara (French West Africa and Algeria). First of all, however, it would be necessary to study the life and migrations of the Libyan nomadic peoples at close quarters, to ensure that the experiments made were on a sound basis.

I therefore recommend that Unesco send an expert competent to make a first-hand study of this problem on the spot, since it is of prime importance to the future of Libya and I must acknowledge that I am not qualified to deal with it myself.

Medical Inspection and Feeding of Defective Children

According to the information with which my colleague of the World Health Organization, Dr. Lindsay, has kindly provided me, Libyan children of school age are on the whole in a fairly good state of health, in the sense that, apart from eye troubles, they have hardly any serious ailments. This does not, however, mean that they are physically flourishing, for most of them are undernourished.

It would be desirable therefore, to introduce, wherever possible, a system of medical inspection in schools. The only such system at present operating almost entirely satisfactorily is that of the women teachers' training centre at Tripoli. It would be desirable for a similar one to be established in the first instance at any rate, at Sidi Mesri teachers' training centre, and later in the urban schools and the more easily accessible rural ones. The object of such inspection would be to track down disease and prescribe the necessary medical care, but above all to single out those children who are unable to do normal school work owing to malnutrition. The teaching staff, of course, would have to give the scheme their whole-hearted support; it would therefore be desirable to provide for a course and some practical instruction in school health at the teachers' training centres. The system of inspection would be supplemented by the creation of school canteens, to give defective children a simple but substantial midday meal. This scheme has long been in operation in Algeria, Tunisia and Morocco, with very good results. I may mention that in the Fezzan the meal costs 20 francs a day per pupil.

This project is obviously not one that can be implemented overnight. I therefore suggest that, by way of experiment, medical inspection and possibly a school canteen should be organized in a few schools where they are particularly needed. The Ministry of Education would here have to act in close co-operation with the Public Health Department and WHO.

¹ Op. cit., p. 21.

Private Schools

The only private schools in Libya which we need consider at present are the Italian schools.

It would be desirable for the Libyan Government, when Libya becomes an independent State,¹ to adopt as its own, the agreement concluded between the British Administration in Tripolitania and the Italian Government, which appears to give general satisfaction. This agreement could be extended to Cyrenaica, where two Italian schools are now functioning. The question does not arise in the case of the Fezzan, where there are no private schools at all.

Adult Education

There is another way of dealing with the problem of illiteracy, already referred to, besides that of developing schools, a method which at best can only produce long-term results. Adult education provides another line of attack, which can produce quicker effects.

Some attempts have already been made to develop adult education in the three provinces of Libya, but they have been of a limited nature. It would therefore be advisable to consider a more extensive and better co-ordinated scheme, taking into account the experience obtained by Unesco in the field of fundamental education. What is done for adults should, I repeat, include women, if not indeed be directed towards them particularly.

Such a scheme would be likely to have the double effect of increasing the adult population's potential efficiency and, in regions which are badly off for schools, of preparing the way for them by altering the adults' ideas about schooling. These are the two aims which must be kept in mind when an adult education programme is being drawn up.

I therefore recommend:

1. That Unesco send an adult education expert to see what can be undertaken in Libya and study practical ways and means of successfully implementing the schemes, due account being taken of local customs and the attitude of the peoples of Libya.
2. That a Fundamental Education Service be set up under the Federal Ministry of Education, to combat illiteracy, ignorance and out-of-date customs.

FEDERAL QUESTIONS

This is a difficult subject, with both political and technical aspects. There can be no question of my dealing with political aspects. The recommendations which follow are, therefore, based on technical considerations; they are what I consider most desirable from the point of view of education.

My chief concern has been to bring the three educational systems in Libya into harmony with one another. Without wishing to introduce a degree of uniformity which would not be in keeping with the nature of things, I believe that the Libyans of the three provinces ought to receive an education which will enable them all to play a useful part in the life of the country.

My recommendations are, therefore, as follows:

¹ Libya was declared an independent State on 24 December 1951.

It seems reasonable for the Federal Government to be responsible for all or part of the training of teachers. One of two systems can be considered: (a) either the Federal Government will be responsible for the whole of teacher training, i.e. assume responsibility for all the teachers' training centres now in existence or later to be founded, together with all the corresponding expenditure (payment of staff, boarding costs, school materials, maintenance and construction of buildings): (b) or it would merely be responsible for the senior section mentioned above, designed to train men and women teachers for the two senior primary and the two junior secondary years, together with the expenditure mentioned under (a) entailed by that section.

It must be admitted that, technically speaking, the second system would raise difficulties, because the Sidi Mesri centre would include both a federal section and a purely Tripolitanian one; it would be hard to draw a very clear line between the financial and administrative responsibilities of the Federal Government and those of the provincial governments. From a strictly technical point of view, therefore, an exclusively federal system of teacher training seems to me better.

In order to improve the quality of teaching and to bring the types of instruction given in the three provinces of Libya as far as possible into line with one another, it seems desirable to create, at the federal level, a body of specialized inspectors.

In the first instance the creation of the following posts could be considered: two posts for Arabic and religious instruction, one post for the natural sciences (mathematics, physics, chemistry, biology), one post for history and geography, one post for English, one post for agricultural training, one post for physical training, one post for women's education; or eight inspectorships in all.

To begin with, several of these inspectors would necessarily have to be recruited abroad, until such time as Libyan educators have become sufficiently highly qualified and experienced. In addition, provision could be made, as early as possible, for Libyan assistant inspectors who would be trained gradually by association with the foreign inspectors.

These inspectors should be secure in the tenure of their posts and enjoy extensive travelling facilities, since they would have to move about all over Libya.

The foreign textbooks now used, whatever their intrinsic merit, are not adapted to the country. It is essential therefore to prepare and publish, with the least possible delay, Libyan textbooks which use the best tested teaching methods and at the same time take into account actual conditions in the country. Unesco is engaged in setting up a production centre in Tripoli which is to have a highly qualified expert as director, assisted by able technicians.

This centre will not be able to perform its task successfully without the close co-operation of the teaching profession in the three provinces of Libya and the support of the Federal Government, which could set up a special service for that purpose under the Ministry of Education.

Nor is it only a question of textbooks; maps and posters are almost entirely lacking at present or, where they exist, are in Italian. I also suggest the manufacture of slates and slate pencils, since they are so much better for beginners than exercise books, pens and ink.

The creation of the production centre will raise financial problems, the nature of which can only be precisely known when the Unesco expert has

drawn up a detailed programme of action. The cost of initial establishment could probably be defrayed jointly by Unesco, the Libyan Development Agency, and LATAS. Running expenses would be met by the Federal Government, by means which cannot be specified at present.

The question of a teachers' code could be studied by the Federal Government and the provincial governments jointly. It is essential that appointments, promotions, the system of transfers, holidays and retirement, and disciplinary action should be regulated by a well-defined set of rules. The profession would thereby acquire a stability which at the moment is painfully lacking.

When visiting schools I was surprised to find how few men teachers had held the same post for several years, and to learn that it was not unusual for teachers to be moved after less than a year in a post. A teacher's influence is proportionate not only to his knowledge and the soundness of his teaching method, but to the time he has held the same post.

A sound code will undoubtedly help to give the profession the stability which is so greatly to be desired. But it will only yield the best results if, in addition, the teachers have satisfactory living conditions. Many of them experience great difficulty in finding somewhere to live, particularly in small rural centres, and it is frequently on that account that they ask to be transferred. The only effective solution would be to build dwellings for teachers; this could obviously only be done gradually, starting with the centres where accommodation difficulties are at their worst.

In addition, the Federal Ministry of Education could, in co-operation with the United Nations technical assistance experts, set about studying two problems which affect the country's three provinces and have not yet been finally solved, namely women's education and the education of nomads.

In view of the complexity of technical education problems and their obvious connexion with the technical assistance work that has been undertaken in Libya, it appears desirable that the technical schools planned for providing agricultural, industrial, commercial and administrative training should be placed under the Federal Government, since that government alone will be empowered to negotiate with the Specialized Agencies of the United Nations and be able to find the money required for founding these schools and operating them efficiently.

Lastly, it would be desirable for the Federal Ministry to deal with the question of scholarships and fellowships abroad, and act as intermediary between the provincial governments and the Specialized Agencies or foreign governments concerned. Requests for scholarships and fellowships would be submitted to the Federal Ministry by the provincial governments, after a programme of action had been drawn up by all the departments concerned. Although the Ministries of Education are the sole bodies competent to deal with primary and secondary scholarships, they must in point of fact consult the various provincial administrations about the number of students to admit into any particular branch of higher education.

These reforms will involve the establishment of the following services in the Federal Ministry of Education:

A teachers' training service, with wide or limited powers according to the solution adopted.

A specialized school inspection service, to consider the various reports sent in by the inspectors and draw the appropriate conclusions.

An educational materials service, working in close co-operation with the technicians of the Unesco production centre.

A staff service to draw up, with the provincial governments, a general code for the teaching profession in Libya.

An investigation service, which would in the first place consider, with the Unesco experts, the problems of women's education and the education of nomads, and suggest general solutions.

A technical training service, working in close co-operation with the United Nations Specialized Agencies, the Libyan Development Agency and LATAS.

An adult education service.

A service for scholarships and fellowships abroad, to study the requests submitted by the provincial Ministries, negotiate with the Specialized Agencies and governments concerned, and finally make arrangements for the beneficiaries' travel and stay abroad so as to reduce waste of time and money to a minimum.

A service for liaison with the provincial ministries.

This means that the Federal Ministry would make general educational policy, in accordance with Article 38, paragraph 23 (Chapter III) of the Libyan Constitution. Its relations with the provincial governments would be as follows. The Federal Ministry would:

1. Provide them with well-trained teachers, at least for the senior classes, as indicated above.
2. Accredite federal inspectors to them, communicate the inspectors' reports to them and propose to them general measures suggested by consideration of the reports.
3. Enlist their co-operation in the production of educational material and provide them with this material under conditions to be defined.
4. Study with them general regulations to be applied to the Libyan teaching profession.
5. Study with them general measures to solve the problems of women's education and the education of nomads, and any other problems affecting Libya as a whole which might arise later.
6. Try to obtain from the Specialized Agencies the scholarships or fellowships asked for by the provincial ministries, and make arrangements for the travel and stay abroad of the beneficiaries from each province.
7. Organize and operate, in close co-operation with these ministries, the technical schools to be set up or already existing in the territory of each province.

All these functions of the Federal Ministry of Education will entail large budgetary expenditure, which it is impossible at present to specify in detail because it cannot yet be known how the project will be implemented; much of this expenditure will figure as a deduction from the costs at present borne by the provincial budgets.

QUESTIONS PECULIAR TO TRIPOLITANIA

Primary Education

Two essential questions arise here—the quantitative development of primary education, and its programme.

Firstly, the question of the quantitative development of primary education has been dealt with above in the case of the three provinces, in relation to teacher training. It will be impossible to secure an appreciable increase in the primary teaching staff until the Sidi Mesri teachers' training centre is in a position to supply an adequate number of teachers, and this will not happen until the school year 1955-56. Between now and then, it will be necessary to provide for the needs of recently established schools which are developing normally, and to set up certain new schools which are urgently needed. The situation can be met by retaining the services of a number of temporary teachers, despite their indifferent quality.

Nevertheless, it seems that better results could be obtained by concentrating efforts, instead of dispersing them as is frequently done at present. I came across several small schools giving instruction which extended over a period of five and even six years; but the classes of the final two years were very 'thin', and a mediocre teacher was in charge of some 12 to 15 pupils, or even less.

It would be preferable to combine two or three classes of this kind in a fairly large school where a capable teacher would be in charge of some 35 to 40 pupils. This could be done in one of two ways. The first would involve organizing a motor transport service (as is the custom in Tripoli) wherever possible, i.e. wherever the roads permit it; the cost of transport would be largely offset by the saving which would result from the abolition of abnormally small classes. The second method—more expensive, but more suitable in a country where good roads and automobiles are rare—would be to organize primary boarding-schools strictly reserved for fifth and sixth year primary pupils, although the children of nomad populations could be admitted if space was available. The establishment of such boarding-schools would be very welcome, for instance, at Giado, Tarhuna and Zliten. If necessary, these schools could also receive pupils following the supplementary agricultural courses which will be discussed further on.

Lastly, owing to the very limited budgetary resources which the Tripolitanian Government will have for some time at least, and the resulting slow rate of school development, it is clear that the establishment of new classes must take place judiciously, i.e. only when the number of pupils amply justifies them. Thus, without completely neglecting regions where the desire for instruction is less obvious, it would doubtless be well to establish a close network of schools in the areas where all or almost all families wish their children to attend school. Consequently, the Tripolitanian Ministry of Education should draw up a plan for that purpose as soon as possible, as it is now aware of the number of fully-trained teachers that will be at its disposal in the near future.

Secondly, with regard to the programme, it seems that it will be possible to organize, in accordance with the Egyptian curriculum, the teaching of a foreign language during the fifth and sixth primary years, as soon as those who have completed their training at the Sidi Mesri centre are numerous enough to permit this measure to be generalized—that is to say, in two or three years' time. It is true that this teaching will be fairly elementary to begin with, but it will be definitely improved as soon as the pupils of the senior section, already mentioned, have completed their training.

Moreover, it seems advisable to institute courses in agriculture (or rather, an introduction to improved agricultural methods) wherever possible, as soon as the first teachers to receive agricultural training have been appointed to a post. Perhaps it will then be necessary to make certain changes to the curricu-

lum now in force, in order to ensure that this agricultural training is really profitable.¹

All these suggestions would take several years to implement, and do not involve any immediate expense. It must be noted, however, that the Tripolitanian Government will shortly have to face certain expenditure on building, for the number of buildings available in the relatively large centres is diminishing and there are often no buildings in the smaller centres that could be used.

Accordingly, in the light of the school development plan I have advocated above, the Ministry of Education would do well to take a census of all usable buildings and prepare a list of the new buildings whose construction is anticipated during the next 10 years. This plan—or at least a part of it—could be financed by the Libyan Development Agency.

Lastly, my visits to places outside Tripoli gave me the impression that it would be most useful to organize, in a number of carefully selected communities, libraries for literate adults as well as for pupils and teachers. To begin with, these libraries could be established in the four centres of inspection situated outside Tripoli, namely Suk el-Giuma, Garian, Zavia and Misurata. The Ministry of Education would have no difficulty in housing the libraries in the schools of these centres, or in finding the very small funds required for installing the bookshelves. As for the books, they could be acquired by way of donation; a campaign for the establishment of these libraries would, I think, be well received in Libya and would result in the collection of an appreciable sum. Moreover, the adult education expert, whom I recommend Unesco to send there on mission, could obtain certain funds for the purchase of demonstration material. Furthermore, Unesco's Voluntary Assistance Service would be able to make its own particular contribution. The books purchased would be mainly in Arabic; but these could be supplemented by some carefully selected books in Italian, as a large number of adults are familiar with this language, and by others in English, as numerous young people now have a sufficient knowledge of English to be able to read simple texts. The main difficulty would be to strike a proper balance between the various intellectual needs to be satisfied—those of adults, children and teachers; consequently, the lists of books to be purchased should be drawn up in consultation and agreement with the competent services of the Ministry of Education.

Secondary Education

Several times during my visits I was asked whether a secondary school would be established at Jefren, Nalut, Misurata, Homs and even Zliten. It is obvious that there can be no question of establishing secondary schools proper in most of these centres, but it might be possible to consider organizing supplementary agricultural courses in at least some of them. In this way, young people already initiated into modern agricultural methods during their primary studies would receive very useful supplementary training. The best of them could then receive additional training at the agricultural school whose establishment is recommended by ILO.² If this principle were adopted, the programme relating to equipment and courses should be drawn up by the agricultural

¹ See III, pp. 78-84

² See II, pp. 66-77

education expert whom, at the outset of these recommendations, I suggested Unesco should send. At Misurata and Nalut, for instance, there might be supplementary courses bearing on handicrafts.

With regard to secondary schools proper, I feel that their development can only be guided by that of the primary schools on the one hand and by the country's economic evolution on the other. There must therefore be no question of over-multiplying them, as the yield from primary education is still only slight (as regards both quality and quantity) and the economic outlook for Libya still uncertain.

Thus, I do not think that a third secondary school need be contemplated in the near future. We must wait until education has been established on firm foundations in the eastern province, and this cannot be achieved within less than four or five years.

The two existing secondary schools—at Tripoli and Zavia—will continue to develop, thanks to the establishment of several sections in the upper classes. I do not think that an unspecified number of preparatory classes should be instituted. Secondary education is only of value if secondary studies are, qualitatively, of a high standard, and this means that only pupils capable of following such studies should be admitted to them. As the number of candidates for secondary schools increases, the selection can be made more rigorous, so that it will not be necessary for some time to come to increase the number of sections for the first year.

In the light of the foregoing, I feel that it is necessary to envisage the following expenditure for 1952-53:

Additional equipment for the laboratories of the Zavia school, and installation of laboratories at the Tripoli school. (LATAS has been approached on this subject and the laboratories have been promised. I mention this item of expenditure merely as a reminder.)	£ 5,000
Installation of a library at the Zavia school and additional purchases of books for the Tripoli school. (This expenditure could be borne partly by the Libyan Development Agency, partly by LATAS, and partly by Unesco's Voluntary Assistance Service.)	700
Arrangement of a sports ground at the Tripoli school. The cost will depend on the nature of the ground's equipment. The work might be planned to be carried out in stages. (This expenditure could be borne partly by the Tripolitanian Government and partly by LATAS.)	
Establishment of five new classes (three at Tripoli in the second, third, and fourth years, and two at Zavia in the second and third years), requiring approximately eight new teachers, nearly all foreigners, with an average salary of £475 per teacher per year. $£475 \times 8$	3,800
Increase in the number of boarders: approximately 50 (20 at Tripoli, 30 at Zavia), which would not involve any initial expenditure, as the building and material already exist. Maintenance costs alone are involved, and these may be estimated at £37 per pupil per year. (This would be paid out of the Tripolitanian budget.) $£37 \times 50$	1,850

In short, apart from the arrangement of the sports ground at Tripoli, the estimated new expenditure for secondary education for 1952-53 amounts to £11,350, of which £5,650 would be borne by the Tripolitanian Government (operating expenses) and £5,700 by the various organizations to which an appeal might be made (equipment expenses).

Technical Training

The question of technical training, considered on the federal plane, is dealt with in a special report drawn up by representatives of Unesco and ILO.¹

QUESTIONS PECULIAR TO CYRENAICA

Primary Education

It seems that in Cyrenaica, as in Tripolitania, primary schools tend more and more to fall into one of two definite categories:

1. Small country schools, with classes limited to the first four years of primary teaching.
2. Schools in the more important centres or the large primary boarding-schools, with classes for the whole six years of primary education.

In my opinion, the first task should be to establish a four-year school in each of the important centres, so as to limit as far as possible the number of boarding-schools for elementary classes which are costly, and affect only a very small number of children of school age. For that purpose, it would be advisable for the Cyrenaican Ministry of Education to draw up, as quickly as possible, a plan for school development which would be implemented as and when teachers became available. It should be recalled in this connexion that the teachers' training centre to be established at Benghazi will have provided its first teachers only in October 1955. Until then, the establishment of any new classes would require the recruiting of temporary teachers, i.e. teachers of inferior quality. Thus, it would be wise to restrict school expansion as far as possible to the normal development of existing schools and the establishment of such new schools as are absolutely indispensable.

It seems advisable, as in Tripolitania, to group the fifth and sixth year primary pupils in a small number of large schools with boarding facilities. The existing boarding-schools at Al-Abiar and Marsa Susa (Apollonia) could be expanded for that purpose; but other boarding schools are necessary, particularly at Adjedabia and Tobruk. They must be reserved exclusively for fifth and sixth year primary pupils.

The measures indicated above concern only the coastal region of Cyrenaica, where the population fluctuates less than elsewhere. As regards the nomad population, the expert which Unesco has been asked to send should study the problem very closely and consider the possibility of organizing nomad schools, at least for the first four years of primary education. In any case, this would necessarily be a very long-term project.

As in Tripolitania, school education should be related as far as possible to the life of the country in general, which means that the largest possible place in the curricula should be reserved for problems relating to the land. It will be the task of Unesco's agricultural training expert to work out the methods of achieving this, in close co-operation with the Ministry of Education and the Ministry of Agriculture.

¹ See II, pp. 66-77

Secondary Education

In addition to secondary schools proper, secondary education will embrace the technical and agricultural schools which are studied in II and III, pp. 66-77 and 78-84.

At present, there is only one secondary school at Benghazi. It has urgent need of: laboratories for the natural sciences (estimated cost, £3,000); a library for teachers and pupils (estimated cost, £500).

The expenditure for these two items could probably be borne by LATAS.

Moreover, new classes will have to be established in the next few years in order to meet the normal increase in the number of pupils; one section for the third, one for the fourth, and one for the fifth year might normally function as from 1 October 1952. This means, probably, the appointment of five foreign teachers, each receiving an average salary (all allowances included) of £648 per year; $£648 \times 5 = £3,240$ for 1952-53.

The establishment of a new secondary school at Derna in the near future might be envisaged, as at present 90 pupils of Derna are studying at the secondary school at Benghazi and the final classes of the two primary boys' schools at Derna have a total of 57 pupils. Thus it seems possible to open a first year secondary class at Derna as from 1 October 1952. The Government of Cyrenaica should bear the initial expenditure and pay the three foreign teachers: £648 per teacher = £1,944. Provision should be made for the establishment of one new class during each of the four following years, i.e. for seven new teachers at the end of four years and a headmaster as from the beginning of the second year: $£648 \times 7 + £800 = £5,336$. In 1957, the salaries of the staff members of this school will reach a total of $£1,944 + £5,336 = £7,280$.

The costs of equipment could be spread over several years; the laboratories are not immediately necessary. But it would be wise to equip this establishment with a library as early as the first year. Perhaps LATAS could provide a sum of £500, which is the estimated cost of the first stock of books.

In Cyrenaica, as in Tripolitania, only really good pupils should be admitted to secondary schools; there should therefore be rigorous selection.

As regards the curriculum, it would probably be advisable to organize the teaching of a second foreign language in addition to English, which is the only one taught at present. Thus the whole of the Egyptian syllabus will be applied in Cyrenaica as in Tripolitania.

Education for Girls

In addition to the general problems already referred to, girls' education in Cyrenaica raises a number of special problems:

1. Up to the present, it has been confined to the two main towns, Benghazi and Derna, where, although of only recent institution, it is yielding promising results. The Ministry of Education is already rightly considering the extension of the girls' schools in both these towns. In a number of other centres, such as Barce, there is a girls' class at the boys' school; it is the beginning of a girls' school. At Adjedabia, I ascertained that a girls' school would have every chance of succeeding. As regards the important centres, it is already possible for the Ministry to draw up a plan for the extension of girls' schools.
2. However, in addition to budget difficulties, this plan will encounter another major problem—the lack of women teachers. For while it should be easy,

within three or four years, to find at Benghazi and Derna women teachers who have received an adequate training, but it will be very difficult to induce young women living in the towns to establish themselves as teachers at Adjedabia or Tobruk, for instance. Nevertheless, some of them might be prepared to do so. Moreover, it is not unreasonable to hope that several of these young women who will marry officials in the Department of Education or in other departments will agree to act as teachers after their marriage and will be able to find posts in the localities where their husbands are working. In any case, several years must probably elapse before all these innovations are popularly accepted, so that it would be unwise to envisage any considerable extension of girls' education before 1957 at the earliest. Moreover, this development will be limited to the main centres of the sedentary population. As regards the nomads, the problem of girls' education will certainly raise more serious difficulties.

QUESTIONS PECULIAR TO THE FEZZAN

Harmonizing of Education in the Fezzan with Education in the Rest of Libya

Whereas the governments of Tripolitania and Cyrenaica have adopted the Egyptian educational programme, the Fezzan has since 1947 been following the Algerian programme; since October 1950, however the teaching of Arabic has been intensified. Obviously, the Fezzan cannot continue to maintain a system which is so different from the one in force in the rest of Libya. On the other hand, it seems very difficult to bring teachers to the Fezzan from other parts of Libya; the governments of Cyrenaica and Tripolitania have not enough qualified teachers for their own schools and frequently experience difficulty in supplying schools remote from the main centres; it thus seems unlikely that they would be able to find candidates for posts in the Fezzan. Furthermore, it would not be possible to find qualified foreign teachers for this distant country where life is so harsh.

Thus the only reasonable solution is to maintain the present system until the young Fezzanese who are now studying in Algiers return to their own country. They will then be qualified—perhaps after receiving supplementary training at one of the teachers' training centres at Benghazi and Tripoli—gradually to adjust teaching in the Fezzan to the system prevailing in the rest of Libya.

General Organization of Education

In the meantime, the Ministry of Education will be able gradually to implement its plan for establishing elementary schools in all the important centres (chief towns of the *mudirias*); intermediate schools at Brach, Murzuk, Um al-Araneb, Tamezaua, and Djedid, which implies the organizing of boarding facilities for the pupils; and lastly, three schools, in which boarding facilities are included, at Ghat, Ghadames, and Dar el-Bey (Sebha), where French will be studied as a foreign language in accordance with the Egyptian programme. This plan corresponds fairly well to the country's needs, but it will be necessary to envisage for the *mudiria* schools a cycle of teaching spread over a period of four years, as soon as there is a sufficient number of teachers for that purpose.

With regard to school buildings, it will probably be necessary to extend to the Fezzan the system of 'shift' classes, in order to reduce expenditure; but even if this is done, the programme proposed will require the construction of numerous school buildings and lodgings for teachers, and this will raise difficult financial problems, to solve which the assistance of the Libyan Development Agency will certainly be necessary.

Agricultural Training

It is planned to organize a supplementary course in agriculture at Dar el-Bey (Sebha). Its curricula will be adapted to the particular nature of the country; and part of the teaching, which will be mainly of a practical nature, can be given by the agricultural monitors now being trained at Biskra. It will also be advisable to provide for practical instruction in agricultural craftsmanship, so that tools can be repaired in the province itself. The best pupils of this supplementary course might subsequently follow courses in one of the Libyan schools at Sidi Mesri or Magdalena. This is such a long-term project that it is not possible for the moment to give an estimate of the expenditure that it will involve.

Secondary Education

There can be no question of establishing a secondary school in the Fezzan. The best pupils of the schools at Ghat, Ghadames, and Dar el-Bey (Sebha) will have to receive scholarships enabling them to attend, as boarders, one of the secondary schools in Tripolitania or Cyrenaica. In any case, the system cannot function until the schools in the Fezzan have been fully developed, and for some time to come the number of scholarship holders will necessarily be very limited.

Education for Girls

We have already indicated that the present situation and the complete lack of qualified women teachers make it impossible to envisage any plan for the development of girls' education. The Ministry of Education will certainly create and seize all possible opportunities for initiating such education for girls as is essential to the development of the province.

Adult Education

It is proposed to establish a cultural centre at Dar el-Bey (Sebha) and to equip it with audio-visual material. Unesco's adult education expert will be able to study this question in co-operation with the Fezzan authorities and consider the extension of this system to other important localities in the province.

GENERAL CONCLUSION

When I was designated as an expert to be sent to Libya, I thought that I should be able to draw up a plan to expedite the development of the school system, and thus a decrease in illiteracy. But I reckoned without the realities of the country's position, with which I was unfamiliar. Once I had come into

contact with them, I was obliged to modify my ideas and content myself with the recommendations formulated above.

I felt that, before thinking of any large-scale development, it was necessary to consolidate what already existed. Otherwise the result would be a superficial system of education which would not meet the essential needs of the country. Libya's first need is a small number of well-trained young people, capable not only of playing an active part in their country's life but also, in their turn, of educating increasing numbers of other young Libyans.

This can only be achieved if teachers are given a sound training. Hence the almost exclusive importance which I have assigned, for the next few years, to the teachers' training centres, their development and their equipment. It is these establishments (both existing and future ones) which will fashion Libya's cultural future. They will enable Libya gradually to improve the quality of its own teachers and lighten the heavy burden imposed upon it by the recruiting of foreign teachers.

I have also emphasized the quality of the teaching given in the secondary schools. The latter do not constitute an end in themselves, but simply permit of the transition from primary to higher education. Consequently, I feel it is indispensable that:

1. The conditions of admission should be very severe, for slow pupils are a hindrance to class progress, and secondary education in Libya has no time to lose.
2. Teachers should be highly capable; hence the need for maintaining foreign teachers in these schools, so long as there are not enough Libyans, who have been trained at foreign universities, to replace them.
3. Teachers should be provided with adequate equipment, particularly for the experimental sciences, so that the young Libyans who follow higher education courses will not be hindered by serious lack of material.

All this implies that, during the next few years, a policy of quality must be preferred to a policy of quantity; the future of the country depends upon it.

It is only when this policy of consolidation produces its first results, i.e. in 1955 at the earliest, that the Libyan Government will be able to contemplate a policy for the rapid development of education, corresponding to the economic development of the country.

As to the problems of girls' education, the education of nomads, and adult education, I have been unable, owing to lack of time, to gather sufficiently detailed information concerning them; I have therefore asked Unesco to send other experts to study these questions. Lastly, with regard to technical, industrial, commercial, and agricultural training, I have worked in close co-operation with my colleagues of ILO, and I approve the recommendations which they present elsewhere.

A P P E N D I X E S

I. LIST OF LIBYAN EDUCATIONAL ESTABLISHMENTS VISITED

TRIPOLI

Sidi Mesri teachers' training centre for young men
Tripoli teachers' training centre for young women
Secondary school
Administrative and technical training centre
Shara Zavia boys' school
Al-Alamein boys' school
Hanni girls' school
Girls' school attached to the teachers' training centre for young women
Tripoli Italian *liceo*
Umberto di Savoia school (Christian Friars)
Ernesto Schiaparelli school (missionary Franciscan Sisters of the Immaculate Heart of the Virgin)
Nursery school of the missionary Franciscan Sisters of the Virgin
Italian mixed school of the Tripoli Fair

WESTERN PROVINCE

Zavia secondary school
Zavia boys' school
Zavia girls' school
Bu Izza boys' school
Sorman mixed school
Al-Mayah mixed school
Bir-al-Ghanam boys' school

CENTRAL PROVINCE

Nalut boys' school
Nalut girls' school
Giosc boys' school
Giado boys' school
Giado girls' school
Mazgura boys' school
Talk with the education inspectors in Jefren and Garian

EASTERN PROVINCE

Sidi Abd-as-Slam traditional school (in Zliten)
Misurata boys' school
Misurata girls' school
Zarrugh boys' school

Gasr Ahmed (Misurata Marina) boys' school
 Zliten boys' school
 Zliten girls' school
 Gaddusch school
 Homs boys' school
 Homs girls' school
 Abiar Miji boys' school
 Tārhuna boys' school
 Tarhuna girls' school
 Cussabat boys' school
 Al-Glil boys' school

CYRENAICA

Secondary boys' school	}	Benghazi
Al-Amir boys' school		
Al-Amir girls' school		
Italian convent		
Al-Abiar primary boarding-school		
Gubba primary boarding-school		
An-Nur boys' school	}	Derna
An-Nasr boys' school		
Girls' school		
Magdalena agricultural school		
Ghemines boys' school		
Adjedabia boys' school		
Magrum boys' school		

FEZZAN

Dar el-Bey (Sebha) boarding and day school for boys
 Murzuk boys' school
 Brach boys' school

II. WEEKLY TIME-TABLE FOR PRIMARY SCHOOLS IN TRIPOLITANIA

<i>Subjects</i>	<i>Number of lessons per week (each lesson lasts 45 minutes)</i>					
	<i>1st year</i>	<i>2nd year</i>	<i>3rd year</i>	<i>4th year</i>	<i>5th year</i>	<i>6th year</i>
Koran and religion	3	3	4	4	3	3
Arabic speech and writing . .	12	12	10	9	9	9
Singing and music	—	—	1	1	1	1
Arithmetic	6	6	6	6	5	5
Practical geometry	—	—	—	—	1	1
History and civics	—	—	1	2	2	3
Geography	—	—	2	2	2	2
Elementary natural science .	3	3	2	2	2	2
Hygiene	—	—	—	—	1	1
Drawing	3	3	2	2	2	2
Practical work	3	3	2	2	2	1
Physical education and games	6	6	6	6	6	6
Total	36	36	36	36	36	36

III. DAILY TIME-TABLE OF SCHOOLS IN TRIPOLITANIA

	<i>First lesson</i>	<i>Second lesson</i>	<i>Third lesson</i>	<i>Recreation and physical education</i>	<i>Fourth lesson</i>	<i>Fifth lesson</i>
<i>Morning time-table</i>						
(3rd, 4th, 5th, and 6th year classes)	8.05 to 8.50	8.50 to 9.35	9.35 to 10.20	10.20 to 11.05	11.05 to 11.50	11.50 to 12.35
<i>Afternoon time-table (summer)</i>						
(1st and 2nd years)	1.00 to 1.45	1.45 to 2.30	2.30 to 3.15	3.15 to 4.00	4.00 to 4.45	4.45 to 5.30
<i>Afternoon time-table (winter)</i>						
(from 15 November to end of February)	1.00 to 1.40	1.40 to 2.20	2.20 to 3.00	3.00 to 3.15	3.15 to 3.55	3.55 to 4.35

IV. WEEKLY TIME-TABLE OF THE TRIPOLI TEACHERS' TRAINING CENTRE

Subject	Number of lessons per week (each lesson lasting 45 minutes)		
	First year	Second year	Third year
Arabic	6	6	6
Religion	2	2	2
English	5	5	5
Mathematics	5	5	5
Physics and chemistry	2	2	2
Practical work (physics and chemistry)	1 ¹	1 ¹	1 ¹
Biology	2	2	2
Practical work in biology	1 ¹	1 ¹	1 ¹
History	3	3	3
Geography	2	2	2
Civics	2	—	—
Agriculture	2	1	1
Practical work in agriculture	1 ¹	1 ¹	1 ¹
Physical education	2	1	1
Drawing	1	1	1
Educational theory	2 ²	6	6 ³
Educational practice	—	4 ¹	4 ¹
Total	39 ²	43 ⁴	43 ⁴

¹ Afternoon.

² Child psychology.

³ Three in afternoon.

⁴ Seven in afternoon.

V. WEEKLY TIME-TABLE OF THE YOUNG WOMEN'S TEACHERS'
TRAINING CENTRE

<i>Subject</i>	<i>Number of lessons per week (each lesson lasting 45 minutes)</i>	
	<i>First year</i>	<i>Second year</i>
Arabic	8	8
English	8	7
Religion	2	2
Mathematics	6	5
History	2	2
Geography	2	1
Elementary sciences	2	2
Hygiene	1	1
Infant welfare	—	1
Domestic science	—	4
Needlework	2	—
Drawing	2	1
Psychology	—	1
Physical education and singing	1	1
Total	36	36

VI. BUDGET OF THE TRIPOLITANIAN MINISTRY OF EDUCATION FOR THE YEARS 1951-52 AND 1952-53 (English text supplied by the Director of Education)

Items	Period		
	1 Apr. 1951 to 31 Dec. 1951	1 Jan. 1952 to 31 Mar. 1952	1 Apr. 1952 to 31 Mar. 1953
	£	£	£
<i>Personal Emoluments</i>			
Ministerial staff ¹	1,200	400	1,600
U.K.-based staff	3,910	1,500	6,000
Imported staff	17,600	10,000	50,550
Locally engaged staff	171,800 ²	48,010	212,180
Total (Personal emoluments)	194,510	59,910	270,330
<i>Other Charges</i>			
Grant to religious (R.C.) schools ³	2,250	750	3,000
Text books ⁴	5,500	200	10,000
Purchase of school equipment ⁴	9,500	400	12,600
Grant to Kuttab schools ⁵	750	250	1,000
Detention and travelling allowances ⁶	230	100	400
English instruction classes ⁷	600	200	800
Grant to Jewish schools ⁸	300	—	—
Technical training college ⁹	7,500	3,375	12,125
Teacher training colleges ¹⁰	3,450	2,550	9,125
Adult illiterate classes ¹¹	2,720	900	3,600
Library books ¹²	250	65	250
Repairs to school buildings ¹³	700	250	1,000
Secondary schools boarding ¹⁴	5,460	4,225	13,600
Grants and bursaries ¹⁵	3,270	1,000	7,000
Educational magazine ¹⁶	300	100	200
Sundries ¹⁷	180	60	300
Hire of Transport ¹⁸	—	100	400
Total (Other charges)	42,960	14,525	75,400
<i>Special Expenditure¹⁹</i>			
Miscellaneous equipment ²⁰	11,000	700	6,800
Arabic reading books ²¹	3,000	—	4,000
English school ²²	—	500	2,000
Total (Special expenditure)	14,000	1,200	12,800
Total (Ministry of Education)	251,470	75,635	358,530

¹ Allows for imported U.K.-based teachers of English.

² Includes the salaries of the teachers of Italian primary schools up to 30 Sept. 1951.

³ Schools, mostly kindergarten, run by nuns and attended by all nationals.

⁴ Text books, exercise books, and all expendable equipment, issued free to students. Enormous increase in cost of paper.

⁵ Grant towards cost of running Moslem religious (Koranic) schools.

⁶ Expenses incurred by inspectors, etc., on tour.

⁷ Salaries of teachers at English evening classes.

⁸ Similar to item 2 above, ceasing with Jewish exodus.

⁹ Allowances paid to each student in lieu of boarding.

¹⁰ Cost of boarding students at two teacher training colleges.

VII. DRAFT BUDGET OF THE CYRENAICAN MINISTRY OF EDUCATION
FOR THE YEAR 1952-53

<i>Budget Item</i>	<i>Amount</i>
	£ .
Personal emoluments	152,157
Detention allowance	800
Boarding schools; food, laundry, cleaning, etc.	59,680
Books and materials	11,050
Technical education and courses abroad	10,758
Grants: Zawias and Koranic schools	7,865
Grants: community schools	3,075
Cleaning materials	550
Sundries	150
Furniture and equipment	19,091
Agricultural school: stock and equipment	500
School gardening scheme	—
Technical education, materials	1,300
Special courses, Cyrenaican personnel	1,800
Refund Arabic tuition fees	150
Courses for Cyrenaican teachers	3,950
Examination fees	300
Total (Education)	273,176

VIII. LIST OF SCHOOLS IN THE FEZZAN ALREADY OPEN OR
ABOUT TO OPEN IN THE SCHOOL YEAR 1951-52

The attendances in the following localities were: Brach, 63 (including 20 boarders); Murzuk, 39; Dar el-Bey, 90 (including 27 boarders); Ouenzerik, 45; Agar, 15; Bend Beya, 13; Ghadames, 105; Derj, 35; Sinaouen, 39; Ghat, 83; El Barkat, 20; a total of 544. Schools to be opened: Edri, Berguen, Oum el Araneb, Tamezaoua.

¹¹ Originally teachers' salaries. Now concentrating on production of books.

¹² Central library and reference libraries in colleges.

¹³ Only minor and urgent repairs. Major works done by PWD.

¹⁴ Two resident secondary schools.

¹⁵ Expenses of students attending course abroad.

¹⁶ A local production.

¹⁷ Cleaning materials, etc.

¹⁸ Required when government resources are inadequate.

¹⁹ Capital outlay.

²⁰ Includes school furniture and other non-expendable equipment.

²¹ Provision of reading rooms in outlying areas.

²² Proposed fee-paying English-speaking school for all nationals.

IX. THE FEZZAN'S EDUCATIONAL BUDGET FOR THE YEAR 1952
(Draft submitted for approval)

<i>Item</i>	<i>French francs</i>
<i>Staff Salaries</i>	
<i>Item I</i>	
1 director (65,000 × 12)	780,000
1 secretary (13,000 × 12)	156,000
<i>Item II</i>	
5 french teachers (35,000 × 12 × 5)	2,100,000
6 native teachers (35,000 × 12 × 6)	2,520,000
10 monitors ¹ (7,000 × 12 × 10)	840,000
	6,396,000
<i>Purchase and Maintenance of Equipment</i>	50,000
<i>School Supplies</i>	250,000
<i>School Canteens</i>	900,000
	1,200,000

¹ The exact salary of the future monitors training in Algiers has not yet been fixed, but it will certainly be more than 10,000 francs a month.

A sum of 20,000,000 francs has also been estimated for school buildings and cultural missions.

X. SUMMARY OF PROPOSED PROJECTS FOR THE SCHOOL YEAR 1952-53

Training of Teachers

Establishment of a centre in Benghazi with school annex: Staff: 1 director (Unesco expert); 5 teachers paid by the government, £4,000; 4 teachers in the school annex, paid by the government, £1,000; domestic staff paid by the government, amount not fixed. Buildings: construction or conversion of the buildings required (to be financed by the Libyan Development Agency), amount not fixed. Equipment: Library (at Unesco's expense), £500; Laboratories, sports equipment (at the expense of LATAS), £3,300; Maintenance of boarders (at the government's expense), £1,480. Supplementary equipment for the Sidi Mesri centre: Purchase of library books (at Unesco's expense), £200; Laboratories, sports equipment (at the expense of LATAS), £3,300.

Establishment of a school annex for the Sidi Mesri centre: Staff (at the expense of the government), £1,000; Buildings: construction and furnishing of 4 classrooms (at the expense of the Libyan Development Agency), amount not fixed.

Establishment of a senior section in the Sidi Mesri centre: Staff (at the government's expense), £3,400; Maintenance of boarders (at the government's expense), £1,100; Buildings: alterations to be decided later (at the expense of the Libyan Development Agency), amount not fixed; Equipment: additions to equipment to be decided later (at the expense of LATAS).

Vacation course at Sidi Mesri (Libyan Development Agency): Boarders, £344; Staff, to be decided later.

Education for Girls

Equipment of the Tripoli teachers' training centre: Laboratories, sports equipment and library (at the expense of LATAS), £3,800.

Organization of a summer course in the above centre (at the expense of the Libyan Development Agency or of LATAS): Maintenance of boarders, £110; Teachers' salaries, not yet fixed.

Sending, by Unesco, of a woman expert on girls' education and kindergartens.

General Education

Sending by Unesco of an expert to study the problem of the education of nomadic peoples.

Sending by Unesco of an expert on agricultural training and manual work.

Sending by Unesco of an expert to organize instruction in physical education.

Organization of medical inspection in schools and of assistance to under-nourished children: arrangements to be decided by WHO.

Organization by Unesco of the Tripoli production centre for textbooks and educational equipment.

Adult Education

Sending by Unesco of an expert to study the problem and propose solutions.

Organization, with Unesco's assistance, of school and popular libraries at Suk el-Gium, Garian, Zavia and Misurata.

Secondary Education

Additional equipment for the secondary schools in Zavia, Tripoli and Benghazi (cost to be distributed between the Libyan Development Agency and LATAS), £9,200.

Formation of new classes in these schools: Staff (at the expense of the governments), £7,040.

Increase in the number of boarders (at the expense of the governments), £1,850.

Establishment of a secondary class at Derna: Staff (at the government's expense), £1,944; Library (at the expense of LATAS), £500.

XI. SUMMARY OF RECOMMENDED GOVERNMENT AND EXPENDITURE ASSISTANCE REQUESTED FOR 1952-53

SUMMARY OF ASSISTANCE REQUESTED FROM UNESCO FOR THE YEAR 1952-53

Sending of Experts

In order of priority: 1 expert for the establishment of the teachers' training centre at Benghazi; 1 woman expert for girls' education and for kindergartens; 1 expert on adult education; 1 expert on physical education; 1 expert on agricultural training and manual work; 1 expert on the education of nomadic peoples.

Expenses for Equipment

Library of the teachers' training centre at Benghazi, £500.

Library of the teachers' training centre at Sidi Mesri, £200.

Adult and school libraries at Garian, Suk el-Giuma, Misurata and Zavia, amount to be fixed.

Sending of Unesco publications (if possible in Arabic) to the federal ministry and provincial ministries for distribution (12 copies for Tripolitania, 6 for Cyrenaica and 2 for the Fezzan).

Organization of the Production Centre at Tripoli (noted for information)

Participation by Unesco's Voluntary Assistance Service in the equipment of educational establishments in Libya (according to possibilities and applications received from the quarters concerned).

PROJECTS RECOMMENDED TO THE LIBYAN PUBLIC DEVELOPMENT AND STABILIZATION AGENCY FOR 1952-53

Benghazi teachers' training centre and school-annex: Equipment or building of premises, purchase of supplies; amount to be fixed.

Sidi Mesri school-annex: Equipment or building of premises, purchase of supplies; amount to be fixed.

Sidi Mesri senior training section: Equipment or building of premises, purchase of supplies; amount to be fixed.

Holiday course at Sidi Mesri teachers' training centre: Boarders' expenses, £344; Teachers' salaries, amount to be fixed.

Holiday course at Tripoli teachers' training centre (girls): Boarders' expenses, £110; teachers' salaries, amount to be fixed.

Payment towards expense of establishing libraries, amount to be fixed.

Centre for the production of teaching equipment established by Unesco: Payments towards expense of organizing centre, amount to be fixed.

RECOMMENDED GOVERNMENT EXPENDITURE

Libyan Federal Budget

Benghazi teachers' training centre: Teachers' salaries, £4,000; Wages of domestic staff, amount to be fixed; Boarders' expenses, £1,480.

Benghazi school annex: Teachers' salaries, £1,000.

Sidi Mesri school annex: Teachers' salaries, £1,000.

Sidi Mesri senior training section: Teachers' salaries, £3,400; Boarding expenses, £1,100.

Tripoli teachers' training centre (girls): Cookery class expenses, amount to be fixed.

Formation of a body of specialized inspectors: Salaries of 8 inspectors, amount to be fixed; Travel expenses, amount to be fixed.

Production centre for teaching equipment established by Unesco: Payment towards running costs, amount to be fixed.

Tripolitanian Budget

Payment towards cost of making playgrounds for the Tripoli secondary school, amount to be fixed.

Increase in the number of teachers in Tripoli and Zavia secondary schools, £3,800.

Increase in the number of boarders in Tripoli and Zavia secondary schools, £1,850.

Cyrenaican Budget

Increase in the number of teachers in Benghazi secondary school, £3,240.

Establishment of a secondary school at Derna: Teachers' salaries, £1,944.

ASSISTANCE ALREADY REQUESTED FROM LATAS FOR 1952-53

Benghazi teachers' training centre: Laboratories, £3,000; Sports equipment, £300.^o

Sidi Mesri teachers' training centre: Laboratories, £3,000; Sports equipment, £300.

Tripoli teachers' training centre (girls): Laboratories, £3,000; Library, £500; Sports equipment, £300.

Production centre for teaching equipment established by Unesco: Share in expenses of organizing the centre, amount to be fixed.

Secondary schools in Tripolitania (Tripoli, Zavia): Laboratories, £5,000; Libraries (share), amount to be fixed; Playground (Tripoli, share), amount to be fixed.

Secondary schools in Cyrenaica (Benghazi and Derna): Laboratories, £3,000; Libraries £1,000.

AUTHOR'S NOTE

In collecting my information, I consulted the following works:

Steele-Greig, A. J. *History of Education in Tripolitania from the time of the Ottoman Occupation to the Fifth Year under British Military Occupation*. Tripoli, 1948, 63 pp., illus.

Foreign Office Working Party, Great Britain. *Report on Tripolitania*, 1949.

United Nations. Reports of the Administering Powers in Libya (1950). *Former Italian Colonies. Reports of the Administering Powers in Libya. Letter dated 6 September . . . transmitting the report on the British Administration of Cyrenaica and Tripolitania* (A/1390). 15 pp., processed. *Former Italian Colonies. Reports of the Powers Administering Libya. Letter dated 13 September 1950 . . . transmitting the Annual Report of the French Government concerning the Administration of the Fezzan* (A/1387). 86 pp., processed., 1950. New York. Published also in French.

— *Annual Report of the United Nations Commissioner in Libya* (A/1340), New York, 1950 110 pp., map. Published also in French.

Linberg, John. *A General Economic Appraisal of Libya* (A/AC.32/Council R.143/Rev.1). New York, United Nations, 1951, 120 pp. Processed. Published also in French.

El-Shanawany, Mohamed Riad. *Report and Recommendations regarding the Organization of the Vital Statistics Services of Libya* (A/AC.32/Council/R.167). New York, United Nations, 1951, 174 pp., Processed.

Further, the Ministries of Education of the three Libyan provinces were kind enough to supply me with all the general information for which I had asked, and I should like to pay a tribute here to their helpful co-operation.

Finally, I visited as many schools as possible. I received an eager welcome everywhere, which I very much appreciated. A list of the schools that I actually visited is annexed above.

The report is therefore based far more on information derived from personal contacts and observation than on data obtained from books and documentation.

R. LE TOURNEAU

II. TECHNICAL TRAINING FOR INDUSTRY

Libyan industry is so little developed that it needs only small numbers of technical and skilled personnel. Nevertheless, Libya can achieve real economic independence only if the non-Libyan personnel who at present occupy most of the key posts in the public services and industry can be progressively replaced by Libyan workers. It would seem essential, therefore, that the plan for economic development should provide for the training of these workers.

PRESENT METHODS OF TECHNICAL TRAINING

The Administering Powers recognized the importance of technical training, and made every possible effort to provide it. The framework of industrial technical training erected by the Italian Administration for the Libyan people, sketchy though it was, might have constituted a starting point; but it collapsed after the war, and the Administering Powers were obliged to adopt measures aimed at meeting only the most urgent requirements.¹ One such measure was the organization of short training courses for a small number of workers to meet special needs; for example, the training of specialized officials for certain technical services. Another was the granting of foreign fellowships to any young Libyans who had reached a sufficiently high level of general education. Of most importance, however, was the establishment of two technical schools, one in Cyrenaica and the other in Tripolitania.

In Cyrenaica, the Department of Education set up a technical school at Benghazi offering a two-year course for wood, metal, leather, and textile workers. The teaching staff—five Egyptians and one Palestinian—was recruited abroad. The equipment is very inadequate; in November 1951 it consisted of 12 fitted work-benches, a circular saw, eight looms, and hand tools for the various trades taught at the school. Additional equipment has been ordered. There were 50 students in 1949-50 and 45 in 1950-51.

In Tripolitania, the Ministry of Education, in co-operation with Unesco and with the assistance of the Public Works Department, has established at Tripoli a centre for the administrative and technical training of future employees and of workers in the government services. One hundred and seventeen students are now attending the technical classes, and the course lasts two years. The majority of the 17 teachers are Egyptians and Palestinians. The students are admitted after passing an examination based on the primary school-leaving

¹ For further details on the technical training organized by the Italian Administration, see the *Annual Report of the United Nations Commissioner in Libya* [General Assembly—Official Records: Fifth Session, Supplement No. 15 CA/1340], Annex XXVIII: 'Memorandum on education organization in Libya under Italian administration, submitted by the representative of Italy on the Council for Libya.'

certificate, and undertake to accept employment in the public services. At the moment, there is no equipment for the technical section, and practical work is carried out in the workshops belonging to the Public Works Department.

Two types of in-work training have also been started. At Benghazi, the Public Works Department has organized a system of apprenticeship for wood and metal workers, the apprentices being recruited at the age of 13 or over. They are first initiated into the current work, and later receive training under the supervision of British engineers and foremen. There is no limit to the length of the apprenticeship, but it normally lasts from two to three and a half years. At the end of this time the apprentices take an examination, and if they pass, become trained workers in the department's workshops. The apprentices are at first paid 12 piastres a day, which rises to 14 piastres as soon as they have completed their probationary period. At present there are 54 apprentices, 2 carpenters, 12 mechanics, 8 electricians, 4 fitters, and 9 plumbers.

In Tripolitania, the authorities at Wheelus Field have organized a very interesting system of training based on the American method of 'training on the job'. This system applies not only to young apprentices, but also to the workers as a whole. It is intended to increase the productivity of the labour force, to train the workers with a view to their promotion, to improve the ability to command and organize at all levels of responsibility, and to train the workers to assume positions of responsibility.

This training programme is carefully drawn up; it includes an analysis of the operations involved in the work, systematically progressive training, and a monthly check on the progress achieved. There is a special department responsible for supervising the implementation of the programme. Training on the job, however, can never be more than a supplement to the technical education which must lie at the base of any training system.

The obstacles with which the two existing schools are faced are obvious and considerable. The teaching staff—almost all foreigners—is inadequate both quantitatively and qualitatively, and there is not enough equipment to allow a proper course of training to be given. In Tripoli, the school uses the workshops of the Public Works Department, but since these latter are already over-loaded with work, the students are unable to carry out the practical work included in the course. Furthermore, the workshops are not suitably organized for training purposes. Lastly, it is impossible at the moment to ensure any systematic teaching in the technical section. Each instructor conducts his classes in his own way, with the material at his disposal; there is no integrated theory of teaching, no regular and general check of the progress made, and no systematic co-ordination of the teaching of various members of the staff.

The situation with regard to technical training as a whole is therefore rather critical, but it should not be concluded that responsibility for this situation lies with the competent authorities. On the contrary, the latter have made every effort to try to solve a problem which will continue to be fraught with insuperable difficulties unless Libya receives considerable foreign assistance.

PROBLEMS RELATING TO THE ORGANIZATION OF TECHNICAL TRAINING FOR INDUSTRY

The organizational problems to be solved can be divided into several categories:

First, Libya lacks equipment, teachers, administrative personnel, and finan-

cial resources. The cost of purchasing suitable equipment is much too heavy a burden for the Libyan budget, and can be met only by foreign financing. The recruitment of foreign teachers involves linguistic difficulties if they are sought in non-Arab countries, and in the Arab countries competition with considerable local needs.

Second, owing to the level of general education among the population of Libya, the pupils who might be given technical training have insufficient general knowledge. Consequently a special course of general education must be included in the training programme, thus lengthening the training course, at any rate so far as the next few years are concerned.

Third, primary education has hitherto included no teaching which might facilitate the understanding of elementary technical processes and encourage the pupils to seek employment in technical branches of the economy. As matters stand at present, there is a complete break between primary education and technical training.

Lastly, in addition to these specific difficulties, the prejudice against technical training compared to purely theoretical secondary or higher education exists in most Middle Eastern countries. It is to be feared that this prejudice will play an especially large role in Libya, since there are absolutely no trained personnel of any sort in the country. The best pupils will tend to enter the liberal professions or to take up administrative posts, rather than become manual workers or skilled technicians. The Benghazi school, in fact, is already finding it difficult to recruit its full complement of students.

PRINCIPLES UNDERLYING THE ORGANIZATION OF TECHNICAL TRAINING

In these circumstances, we must define the elementary principles which should underlie the organization of technical training.

For the time being, the Fezzan should be left aside; available resources should be concentrated on Tripolitania and Cyrenaica. In these two provinces technical training should be organized in Tripoli and Benghazi. There is undoubtedly some need for skilled workers in rural areas, particularly in Tripolitania, and little hope that this need can be met immediately by pupils who have received an urban type of training; but since technical training requires a solid foundation on which to develop, special methods for rural technical training should be organized only at a later date.

Available resources should be concentrated on long-term requirements. Immediate requirements must be met by the services or industries concerned, by means of intensive courses, systems of apprenticeship, or any other appropriate measures. The essential purpose of any technical training project should be to create a nucleus of the skilled professional and technical workers necessary for the development of the country.

The policy underlying technical training should stress quality rather than quantity. The demands of the Libyan economy are limited in quantity but require a fairly high level of technical skill.

The needs in skilled personnel are varied; they include general activities common to all branches of the economy: maintenance and repair workers and workers in the basic trades, as well as special activities connected with particular branches of the economy; and specialized workers and factory workers in such industries as the tanneries, distilleries, oil factories and flour mills.

For the moment, training should be limited to what is required to meet general needs, since training for specialized activities cannot profitably be organized, either because it is not possible to duplicate in school the technical working conditions found in industry, or because of the small number of persons to be trained.

Management personnel and engineers can be trained only by sending students to a foreign university; this will hold good for at least the first five years.

Industrial technical training should therefore be directed at: (a) the training of skilled workers for industry or the government services; (b) the training of junior technicians; (c) the training of Libyan teaching staff.

Technical training and primary education should be closely linked, and the latter should include some training in manual work.

The organization of technical training in Libya must be centralized. In view of Libya's limited requirements, this training will not affect a large number of students, but it should be of as high a standard as possible from the very beginning. The definition of principles and methods, and the supervision of the way in which they are applied, should therefore be placed in the hands of a single authority; technical training should, in fact, be organized at the federal rather than the provincial level.

The position occupied by technical training in the administrative network of the Federal Government will depend on the general way in which the administration is organized. It appears, however, that it would be desirable, provisionally and for the initial period, to place it under the authority of the body responsible for economic development. The education authorities are faced with such vast and complex problems involving such heavy outlays, that technical training would run the serious risk of being considered of secondary importance; whereas, on the other hand, the present unsatisfactory position and the prejudice against it mean that a special effort must be made. The following institutions should be established:

1. A network of school workshops, within the framework of primary education.
2. Two technical schools, one at Tripoli and the other at Benghazi.
3. A section for the training of teachers, as an annex to the Tripoli technical school.

These recommendations are set out in more detail in the following pages.

VOCATIONAL TRAINING AND PRIMARY EDUCATION

The vocational training of Libyan workers depends, to a very large extent, on the link between primary education and technical training. So long as the young people leaving the primary schools have not reached a sufficient level of general education or been instructed in technical processes, it will be extremely difficult to achieve any satisfactory results in technical training. The problem cannot be solved immediately, owing to the lack of teachers and the numerous difficulties confronting the organization of the school system as a whole. It would, however, appear essential to adopt immediately some temporary solution, in keeping with present possibilities, which could be modified at a later date.

One such solution would be to establish a very close link between general education and pre-apprenticeship training in the basic trades, to be given in the last two years of primary school—that is to say to pupils of 13 years and over. School workshops capable of accommodating 36 students in two classes of two years each—that is, a total of 72 students—should be set up in urban centres and in the larger rural centres. In these centres, primary education would, therefore, be divided into two types: general education and elementary technical training; in the second category, approximately 50 per cent of the timetable, or 18 hours a week, would be devoted to manual work, including practical work in the shops, dimension sketching, and workshop technology.

For the first four years of primary education, there would be no division between general education and technical training; the first and second years at the school workshops would run parallel to the fifth and sixth years of the general education course. The standard reached by pupils in the two branches would be approximately the same.

As education gradually develops, with a consequent improvement in general education and a decline in the age of pupils, this policy can be modified: one year of school workshop—training with a curriculum of 45 hours a week, 30 of them being set aside for manual work—parallel to the sixth year of general education will be sufficient. However, this contingency will not arise for 5 or 10 years. By that time some instruction in manual work will have been introduced into the general education syllabus, and this will facilitate the selection, at the end of the fifth year, of students to attend the school workshops. The latter will then constitute the first step in a whole programme of vocational training, and might be diversified and adapted to the particular needs of the area in which they are situated.

For the moment, the manual work should be divided into four basic types: Fitting and cold iron work, 336 hours: Forge, braziers and tin-shop, 336 hours; Wood-work, joinery and carpentry, 168 hours; Stone-work, 168 hours.

This would amount to 1,008 hours of workshop practice during the two-year course. With the general education that a student would receive at the same time, this programme would enable him, on leaving the school workshop, to enter a course of technical training for industry or the public services, or to become an apprentice craftsman.

REQUIREMENTS TO CARRY OUT THIS PROGRAMME

If this programme is to be carried out, staff, buildings, and equipment will be required.

Staff. The gravest difficulty lies in the almost complete absence of Libyan teachers. Technical training can be given only by making temporary use of qualified heads of workshops, whether Libyans or foreigners. These men should be responsible for the actual running of the workshops and the training of monitors, who will serve as assistants to begin with, and will, if necessary, act as interpreters between the heads of the workshops and the pupils. The choice of these assistants is a very important and difficult matter and will depend in part on the language spoken by the head of the workshop. People who are more

or less technicians themselves, but who have a fairly high degree of intelligence and a taste for teaching, should be selected.

The total staff required for each school workshop is as follows: one administrative director, preferably a Libyan teacher, who will also be responsible for general education; five technical instructors, three for metal-work of all sorts, one for wood-work, and one for building, four assistant instructors, and one or two teachers to assist the administrative director in the work of general education.¹

The pupils should be formed into six groups of six pupils each; each year every group should do a 12 weeks' course in each of the other workshops: forge, sheet-iron, wood-work and building.

Buildings and Equipment. The following workshops and classrooms will be required: forge and sheet-iron shop; fitting shop; carpenter's shop; building shop; tool house; classrooms and sketching rooms; boarding establishment and buildings for the staff and administration. The two latter might be combined with the buildings used by the primary school. A large number of hand tools for each of the trades in which instruction is given, and some machine tools for general use, will be required; the latter should include a drill, grinding wheels, and a small belt-saw.

Estimated Cost. The school buildings should be simple and could be built of light materials. If the school workshop had grounds, the workshops could consist simply of sheds, open at both ends: this arrangement would ensure all the light and air necessary. The pupils themselves would be responsible for maintaining and improving the buildings. The cost of constructing an entirely new building to house the school workshop would amount to approximately £3,500 for the workshops and classrooms. The total cost of the equipment (large and small tools, spare tools, and furniture) would be approximately £5,500, and the salaries of the staff approximately £4,500. The total cost of the school workshop would therefore amount to about £13,500, normal running expenses being about £4,500 a year. For a minimum of two school workshops this would entail an expenditure of £11,000 on equipment and £9,000 on running expenses.

Timing. It would obviously be possible to establish larger schools to accommodate more groups of six, but, in view of the paucity of technical teachers, it would be wiser to adhere to the plan set out above for the first few years. The programme should be as follows:

1. The immediate creation of two school workshops, one in Tripoli and the other in Benghazi.
2. The creation of one or two additional school workshops within three to five years' time, possibly in the large rural centres in Tripolitania and Cyrenaica, or again in Tripoli and Benghazi if the needs of these two towns seem to be more urgent.

When a certain number of teachers has been trained and the economic development plan is well under way, it will be easier to adapt the number and distribution of school workshops to the needs of the country.

The timing of the programme might therefore be as follows:

First Year. Preparation of the first two establishments (Tripoli and Benghazi):

¹ The number of teachers will depend on the amount of assistance forthcoming from the primary school teachers.

buildings, equipment, recruiting of personnel, co-ordination with general education, drawing-up of curriculum.

Second Year. Opening of two school workshops. Induction of 72 pupils. First year course.

Third Year. Induction of 72 more pupils. First and second year courses.

Fourth Year. Graduation of first 72 pupils. Preparation of one or two additional school workshops.

Fifth Year. Graduation of second group of 72 pupils. Opening of two new school workshops (using the new teachers who have been trained).

By the end of the sixth year there will be an adequate number of school workshops with Libyan teachers; these workshops can supply the technical schools with students who have a solid groundwork on which to base more advanced vocational training.

ORGANIZATION OF TECHNICAL SCHOOLS FOR INDUSTRY

To meet the essential requirements of the Libyan economy, two technical schools for industry, one at Tripoli and one at Benghazi, should be established. The purpose of these schools would be to train skilled workers and technicians, to train future technical instructors, and to give supplementary training to workers in industry and the public services.

The Training of Skilled Workers and Technicians

Organization. Initially, the technical school would consist of a preparatory year with a class of 72 pupils admitted after an examination of candidates who had reached the primary school-leaving certificate level. This preparatory year would be devoted to acquiring fundamental manual dexterity and improving general knowledge, so as to make possible the subsequent training of the students. In practice, it would fulfil the same purpose as will be fulfilled by the school workshops at a later date when they are operating normally.

At the end of the preparatory year, pupils passing an examination would be admitted to the first year. They would receive more specialized training in a number of trades so that they could make a final choice of the profession they wished to enter, and their training could be concentrated either in the practical or the technical section.

The second year would be divided into two sections, one practical and the other technical. Students with manual rather than technical gifts, the future skilled workmen, would be placed in the practical section. The technical section would consist of students who intended to become supervisors or technicians. About three-quarters of the students would be placed in the practical section and one-quarter in the technical section; but this proportion could be modified to meet the requirements of the economy.

A skilled workers' examination at the end of the third year would complete the course for students in the practical section; students in the technical section would remain a fourth year to complete the syllabus and serve as internes in the industry or the public services. At a later date, pupils from the school workshops might be admitted, after examination, to the first-year course without having to pass through the preparatory year. For the first five years, the curriculum should be limited to the basic trades: fitting, lathe-work and general mechanics;

forging, brazing, soldering: wood-working, carpentry and cabinet-making; building; stonework and carpentry; and specialized trades, such as electricity and steam and internal combustion engines.

When the schools have developed sufficiently, special training courses might be introduced to meet the needs of certain industries.

At present, it is impossible to set up a training school for factory workers in the tanneries or olive oil factories, for example, owing to the very small number of skilled workers concerned and the technical working conditions in these industries. In the future, however, the problem might be solved by co-operation between the school and industrial undertakings. This approach would enable theoretical and practical teaching to be combined.

The Tripoli school should be slightly larger than the one at Benghazi. Both for reasons of economy and in view of such practical considerations as the difficulty of finding qualified teachers, the training of electrical technicians, motor mechanics and technical instructors might all be concentrated at Tripoli. Approximately 50 trained workers and 18 technicians would graduate from Tripoli each year, and 50 trained workers and six technicians from Benghazi. No doubt some students will drop out during the course, but this decline in numbers can be made up, after the preparatory year, by the direct admission of outside students into the first year, after examination. Experience will show what modifications are necessary in later years.

Implementation of the Programme. Implementation of this programme will also require buildings, equipment (machines and large and small tools), teaching and administrative staff, and the funds necessary for normal operation.

Certain factors should be taken into account: two training centres in Tripoli and Benghazi are already in operation, and will supply some of the necessary material; existing buildings in Tripoli might be used, particularly the barracks which the Administration recently relinquished; and the practical limitations on recruiting satisfactory teachers. This last problem will necessitate the employment, for at least six years, of international personnel to organize and direct the school, and to train Libyan teachers.

Supplementary teachers. When the technical schools have developed sufficiently, the organization of supplementary courses for apprentices, young workers, or even adults employed in industry and the public services, may be considered. These courses might be held in the evening or during school hours. In the latter case, provision would have to be made for additional buildings and equipment. Which solution is adopted will depend on the facilities which employers are prepared to grant their workers, and on the financial resources available. Since the public services employ the greatest number of workers, it should not be difficult to come to some agreement between these services and the technical schools.

The supplementary courses might include drawing, technology, applied sciences, and possibly certain subjects of general education so far as they concern the trade in question; workshop practice might also be included. Student teachers could easily be used and the cost of organizing the courses would be fairly low.

Training of Libyan Instructors

A section for the training of instructors should be attached to the Tripoli technical school, with a view to giving students who are already technically and professionally qualified the teaching training and additional technical and professional training necessary for them to pass the instructors' examination, *inter alia* in the teaching of manual work, technology, and industrial drawing. A complete programme would include a training section, and a technical school annex for teaching practice. In practice, the training section and the technical school at Tripoli would provide this combination. The full training course would last three years. The first year would be devoted mainly to technical and educational training, the second and third years would be set aside for internships in the Tripoli or Benghazi technical school or in the two school workshops in these towns, supplemented by periods of educational training in Tripoli. The students would not have reached a very high standard at first, and the programme would have to be adapted to enable them to acquire the fundamental knowledge that they lacked, by attending appropriate courses in the technical section. There should be 24 student-teachers in each year, but after the first three years the number could be considerably reduced, since requirements would then be limited to the normal replacement of teaching staff.

Student-teachers should be between 25 and 35 years old, and should normally have a minimum general education up to the standard of the primary leaving certificate, plus technical and professional qualifications equivalent to at least five years' work in the trade. These qualifications must, however, be modified to meet the present state of affairs, though, in any case, the candidates must have a certain aptitude for teaching and a minimum of technical knowledge.

Implementation of the programme. The following will be necessary for the implementation of this programme:

Staff. One director who will be responsible for relations with other organizations, and for determining the curricula of both the technical school and the training section; one assistant director, responsible for the training of student-teachers and for control and co-ordination within the school; teaching staff, in common with the technical school annex; administrative services, responsible for maintenance of offices, boarding establishment, etc., in common with the technical school.

Workshops and Classrooms. There should be three model workshops, a classroom and a study.

Administrative Buildings and Boarding Establishment. The administrative buildings of the technical school will be sufficient, though a special office might be set aside for the instructors who will be primarily responsible for the student-teachers. Steps should be taken to provide a boarding establishment for all or most of the student-teachers, in particular those who live outside Tripoli.

Equipment. The cost of the special equipment (furniture, materials, tools, machines) will amount to approximately £2,500.

Timing. The timing of the whole technical programme described above should take into account the existence of two training centres in Tripoli and Benghazi

(the Unesco centre and the technical school run by the Cyrenaican Department of Education). The training of students who are now attending these centres should be completed in accordance with the present curriculum, but no new students should be recruited on this basis. The present students could either take up employment or be incorporated into the new courses, if they pass the entrance examination.

The timing would therefore be as follows:

First Year. Preparation of two technical schools (buildings, equipment, recruiting of staff).

Second Year. Opening of the preparatory year in the new technical schools (induction of 72 pupils). Second-year courses in the existing schools on the basis of the present curriculum.

Third Year. Opening of the first joint year.

Fourth Year. Opening of the second year (practical section and technical section). Opening of the instructors' training section.

Fifth Year. Opening of the third year (practical section and technical section). Opening of supplementary courses.

Sixth Year. Opening of the fourth year (technical section).

Preparation of Teaching Material

One of the problems to be solved in connexion with technical training is the preparation of technical books and textbooks adapted to the educational standard and needs of the students. At present, the instructors in the Tripoli centre and the school at Benghazi give their own courses and the students have no textbooks. Since the instructors come from a number of different countries, this leads to the use of very varied systems of measures, technical terms and teaching practices, which creates a certain amount of confusion and makes it difficult to organize effective training. It would therefore seem essential that the experts necessary for the preparation of technical books and textbooks should be attached to the Unesco production centre as soon as possible. These experts would have the following functions:

1. To study and prepare books and textbooks on drawing, the technology of building, resistance of materials, and general technology.
2. To study and prepare books and textbooks adapted to the local conditions in which the trades operate, on the technology of metal working and mechanics, electricity, wood-working and the building trades.
3. To prepare, in co-operation with the experts responsible for the production of general textbooks, scientific exercises adapted to the needs of technical training. This work might be carried out by four experts appointed for one year, if the language problem is solved.

VOCATIONAL TRAINING OF CRAFTSMEN

As far as vocational training is concerned, handicrafts should be considered both from the utilitarian angle, which mainly concerns local consumption, and from the artistic angle, which concerns both local consumption and the export of manufactured goods. In both cases we must take into consideration urban and rural centres, fixed, nomadic and semi-nomadic populations.

The Utilitarian Aspect

The crafts which serve a utilitarian purpose are, basically, skilled trades associated with local life: the making and repairing of agricultural equipment, small mechanized industries, building, and textiles. Few trained workers are required but they are needed in a very wide range of fields. Technical training to meet these requirements cannot be organized until the technical schools and school workshops provide a firm enough foundation on which to extend such training to the rural areas, which will probably not be the case until after the first five-year period. It should be pointed out that the technical schools themselves will be able to satisfy the requirements of the small mechanized industries in Tripoli and Benghazi, and that the school workshops will turn out young people whom it will be quite possible to employ as metal workers, wood workers and builders in the rural crafts.

If any extension of this system is necessary, additional school workshops might be established in the large rural centres, particularly where there are primary boarding schools; or training in rural crafts such as textile, leather work or ceramics might be organized in the urban school workshops. Alternatively, travelling workshops to meet a small number of needs spread over a very wide area might be set up. This last solution, adopted in a number of countries with problems similar to those facing Libya, works through mobile units specializing in one trade or group of inter-related trades. Each unit needs adequate transportation, generally a light lorry and trailer, and suitable training and trade equipment, which is set up on the spot in accommodation supplied by the local authorities. The instructors are responsible for all the work, but are assisted in setting up and dismantling the equipment by a number of labourers made available by the local authorities. Each unit is assigned to a geographical area with specified points of call. The stay at each place may vary in length, but there is a minimum below which the work accomplished is not efficient (generally three months). There must be co-ordination of movement with the other travelling workshops which are scheduled to visit the same centres. The total tour away from the central school workshop generally lasts one year, but the length may vary and should be adapted to circumstances.

No immediate steps, other than those proposed with regard to industrial technical training, are therefore recommended within the framework of the development plan. When the necessary foundation has been laid, it will be easy to include in the plan projects for extending the training programme to meet the needs in rural areas.

The Artistic Aspect

Artistic craftsmanship in Libya is concentrated at Tripoli and consists mainly of textiles, leather work and copper and silver work. The development of vocational training in these crafts depends on the number of workers to be trained. At present, the most obvious need appears to be for workers in the leather working crafts, where it is recognized that there are not sufficient highly skilled workers. On the other hand, in view of the decrease in exports of copper and silver goods, there seem to be too many copper and silversmiths, and the private training of 30 or 40 young people seems to be sufficient.

With regard to textiles, on the basis of the present number of workers in Tripoli, approximately 100 apprentices a year should be trained: but in this

field, too, the workers themselves seem to have developed a fairly good system of training.

Vocational training is only one element of the handicrafts policy to be incorporated in the economic développement plan. The establishment of a handicrafts training school, which seems to be desired by the groups concerned, should therefore be studied, as one of its first tasks, by the organization recommended for handicrafts. A handicrafts school must be established in Tripoli.

The crafts in which training would seem most suitable are textiles, leather work, and possibly fine metal work and ceramics. The necessary accommodation, etc. could be found in the Arts and Crafts School in Tripoli which is, at the moment, a charitable institution rather than a training school, so long as it could be integrated into the general framework of the handicrafts economy. All that would then be needed would be qualified technical staff, additional equipment and a carefully planned curriculum. From the financial point of view, approximately £10,000 would suffice.

SUMMARY OF PROJECTS

The proposed projects would all form part of a single programme intended to provide Libya with the basic essentials in the way of technical industrial training. These projects have been planned on a flexible basis, so that they can be gradually adapted to meet the resources and requirements of the country. In brief, they are as follows:

1. The organization of a network of school workshops within the framework of primary education: two school workshops to be organized immediately and two others within from three to five years.
2. The organization of two technical industrial schools, one at Tripoli and the other at Benghazi to train: (a) skilled workers for the basic trades, and (b) junior technicians.
3. The organization of a Libyan technical instructors' training section attached to the industrial school at Tripoli.
4. The reorganization of the Tripoli Arts and crafts School, if this school can be linked to the body responsible for defining and carrying out the handicrafts policy of the country. Certain buildings, and a certain amount of equipment, already exist, and will considerably reduce the actual expenditure. Furthermore, some equipment can be bought cheaply on the local market, and some can be made by the pupils.

III. TECHNICAL TRAINING IN AGRICULTURE

AGRICULTURAL TRAINING IN THE RURAL SCHOOLS

Agricultural improvement in Libya is a long-term project, and its success requires new attitudes and skills among the future farmers of the nation. If boys attending schools in rural areas know only the archaic agricultural environment which has made their parents content with current methods of agriculture, little can be expected of these boys when they in turn assume responsibility for operating Libyan farms. At present, apart from isolated cases, the rural elementary school can offer to its students only a simple elementary education, along purely academic lines with no consideration for the vocational needs of the students.

Agricultural Curriculum

The rural elementary schools will be, for a long time, the bulwark of the educational institutions serving the country boys of Libya; the immediate prospect of any higher education for this group of students is poor. It is in these schools, therefore, that these boys should receive an education from which direct benefit can be drawn when they leave school. The purely academic side of his education should not be neglected, but the student should be brought into direct contact with agricultural experience adaptable to his environment.

The inclusion of instruction in agriculture in the existing curriculum of the rural school is essential in any programme of Libyan education. The rural school should also introduce such subjects as economics and handicrafts to the student. Agricultural courses could allow some time for these extra subjects by arranging the time-table according to the facilities available.

Teaching Material in the Rural School

At present, the teaching materials available for instruction in the rural school are foreign in origin, and their presentation does not conform to local conditions. To meet the need for agricultural teaching material, we recommend that material for general studies should, wherever possible, have an agricultural orientation. Material in such subjects as arithmetic and language could readily be adapted in this way. In addition, manuals should be prepared in the form of small pamphlets, each dealing with one agricultural undertaking.¹ Each undertaking should be described step by step, giving particular attention to sim-

¹ By undertakings is understood the total sum of effort required for the accomplishment of an agricultural pursuit, either in crops or in animal husbandry; e.g. 'tomato raising' which includes preparation of nurseries, planting, transplanting, pruning, cultivating, insecticide application and harvesting.

plicity of presentation and adaptation to local conditions. This teaching material would be designed for both classroom and practical instruction. We recommend that four experts be engaged to prepare this material in the course of one year. One expert would be necessary for the preparation of teaching material in each of the fields of horticulture, orientation of general studies material, preparation of teaching material in the field of animal husbandry, and agronomy (soils and crops).

Classroom Instruction

The theoretical instruction to be given should have a direct bearing on the agricultural practice of the region and should develop an understanding of the training to be given in the school garden. The teacher should endeavour to bring out the merits of agricultural pursuits as an important form of livelihood and emphasize that the country's development depends on the individual farmer. Students should be made familiar with the efforts which centres of research are making for the improvement of agriculture in their respective localities. The teacher should try to make the student keenly aware of his need to depend on such measures for his own development.

Practical Instruction for Rural Primary Schools

In order to carry out the practical part of school education, a garden plot at the disposal of the students must be provided, together with simple agricultural tools such as hoes, spades, etc. Where programmes of this nature have been introduced in other parts of the world, they have usually received the endorsement of the rural population; and in many cases material assistance has been received from community associations in the form of land and tools. However, in cases where this is not feasible, authorities should intervene by providing for such needs.

The following undertakings would be of immediate interest:

Crops. Since barley and wheat are the two most important grains under cultivation in Libya, it is important that the students be familiarized with these cultures and their value. Maize and other cereals familiar to the country should also be brought to the attention of the students through practical experience. Vegetable crops are most suited to the intensive cultivation which will be practised in the school garden. Raising a patch of tomatoes or peppers will provide an excellent opportunity for the teacher to demonstrate the guidance offered in the work manuals. For crops in general, the garden plot will offer an opportunity to familiarize rural boys with the tasks and principles involved in seed selection, seed bed preparation methods, time of planting and transplanting, crop rotation, the use of the available fertilizers, better harvesting methods, etc.

Horticulture. School facilities will not always be conducive to practical training in horticulture. However, such undertakings as preparation and care of nurseries, planting, grafting, pruning trees, maintenance and care of old trees, harvesting and simple marketing instruction can be undertaken in co-operation with existing local facilities where such assistance is possible. In general, however, training in these operations should always be included in classroom education, giving special attention to olive, date and fig trees.

Special Undertakings. Due to the importance of animal husbandry, an effort should be made to take advantage of local facilities in order to carry out demonstrations of basic principles with larger groups of students. Thus it will be possible in some cases to demonstrate to students such projects as the care of stock, their feeding and basic animal sanitation measures, especially in the case of sheep, goats, poultry and rabbits.

Teaching Personnel. The success of the agricultural instruction to be given in the rural schools will depend to a great extent on the individual effort put forth by the teacher, his 'know-how', and personality. However, the introduction of a programme of this nature is not necessarily dependent on highly trained agricultural teachers; the rural teacher would need only the essential theoretical basis of agriculture, and a working knowledge of such techniques as are to be applied in his practical teachings. However, technical supervision of the programmes should be undertaken by a trained agriculturalist, directly responsible to the Ministry of Education.

AGRICULTURAL TECHNICAL EDUCATION

The first attempt to provide technical training in agriculture in Libya was made by a Turkish Governor of Tripoli, Ibrahim Pasha, who in 1910 started the organization of a training centre of agriculture in Sidi Mesri. Land was acquired in this location and buildings erected to house this school. After the occupation of the country by the Italians in 1912, these early plans were abandoned. The training centre was not inaugurated, and the buildings and land were utilized by the experimental station which still operates on these premises.

Later, in 1932, the Tripoli School of Arts and Crafts started an agricultural course for orphans at the primary education level. It was first established in the buildings and estates of the former fort of Sidi Bilal, and later transferred to the Sidi Mesri district where land and buildings were provided for 40 boarding students. However, the instruction given here was discontinued after 1943.

In Cyrenaica, the first efforts toward any form of agricultural training followed the provision in article 9 of the Royal Decree No. 378 of 5 February 1922 for the establishment of a school of agriculture. However, the results were of no significance, since the centre was not developed. At present, the only form of organized training in agriculture is given in the Magdalena School of Agriculture in Cyrenaica. Established in October 1950, this school plans to offer a three-year course composed of theoretical and practical instruction in agricultural subjects for students having completed primary education. During 1951 it provided a first year course for two sections, one of 17 regular pupils and another of 19 government workers, for a special intensive course in agriculture. For 1952 a regular attendance of 15 pupils for second year courses and 30 new recruits in their first year was expected.

The scarcity of people trained in agriculture is undoubtedly one of the most formidable obstacles confronting any efforts aimed at the development of the country's agricultural resources. This lack of trained staff is felt in all spheres whose co-operation is needed to surmount the country's technical deficiency. However, of immediate importance are the following:

1. Rural Teachers. Teachers with special training are required in the rural

districts to carry out programmes of rural reconstruction. Besides mastering the common subjects, these teachers must be thoroughly familiar with the agricultural subjects which they will be expected to teach.

2. Practical Agriculturalists. While the country will be dependent for some time to come on foreign technicians, these will need the support of trained agriculturalists, who could be depended upon to carry out technical instructions in whatever field of agriculture the respective specialist is engaged, and at the same time undertake the continuation of agricultural work not requiring a high degree of technological knowledge.
3. Agricultural Technicians. In the long run, the development of the country will depend on local technicians who will continue the work begun by outside professionals. Since Libya cannot train this group, their training will have to be obtained at outside universities, through the establishment of scholarships and other forms of assistance.

Organization of an Agricultural Training Centre in Tripolitania and Cyrenaica

The training of rural teachers and practical agriculturalists will require the establishment of two agricultural training centres, one in Tripolitania and one in Cyrenaica. By providing for a sufficient quota of students from the Fezzan, these training centres could also take care of the requirements of that area.

Sidi Mesri in Tripolitania and the Magdalena School of Agriculture in Cyrenaica are the two most appropriate places to carry out such training. Their development into training centres would create an even distribution of training facilities in the two most populated agricultural areas in Libya, and would utilize the existing facilities of establishments already functioning, which have, besides, easy access to Libya's best agricultural country.

The student capacities of both training centres should be proportional to the needs of the particular territory each is serving, and to the ability of each area to assimilate any given number of students trained by such centres.

Training of Rural Teachers. The training of rural teachers is an urgent necessity if any emphasis is to be given to agricultural guidance in the rural schools. Moreover, since steps must be taken to provide the existing rural teachers with at least a working knowledge of agriculture, the preparation of rural teachers must be divided into a long-term training scheme and a short-term training programme.

1. Long-term Training Scheme. The arrangement which seems best suited for the training of rural teachers in Libya would be the provision of a one year course giving a sound foundation of agricultural knowledge, for teachers who have completed the three years in the teachers' training centre. It is expected that as the educational standard of the country rises, these agricultural courses can be lengthened to cover two years, so as to provide a higher specialization among teachers of agriculture.
2. Short-term Training Scheme. Each training centre should select from their respective territories each year 45 rural teachers plus five from the Fezzan, for an extensive three months' course during the vacation period. The purpose of this in-service training would be to provide the practising teacher with a basic agricultural training, and to offer refresher courses to teachers already engaged in this programme, and thus foster a progressively rising level of instruction.

The theoretical instruction should have a direct bearing on the problems of the rural areas, and teaching methods should be suited to their conditions. The three months' course should be evenly distributed between theoretical and practical instruction; for the latter field, demonstration would be most suitable for experience in the agricultural undertakings which the teacher is expected to develop in his community.

The intensive training period should, therefore, offer the following subjects: principles of agricultural education and teaching methods, crops and soil, horticulture, animal husbandry, water and soil conservation.

Since the students will not have the educational background needed for the assimilation of these subjects in an advanced form, the material must be brought down to their level. The boarding facilities for the in-service training group would be the same as for the regular students of the Training Centre (agriculturalists and rural teachers' groups). Special arrangements could be made to use the regular professors of the Training Centres for the summer course.

Training of Practical Agriculturalists

As previously stated, there is need for a cadre of trained agriculturalists who can later carry out instructions of a technical nature and assist the specialists engaged in the development of the country's various agricultural pursuits. Although the education of this cadre entails training in the technical field of agriculture, it requires only the equivalent of vocational preparation, which can be obtained in a four year course above the primary school level.

Programme of Work. By keeping the programme of work for the first year identical to that of the secondary school, except that general agriculture might replace handicrafts, the next three years can be oriented to agricultural training, when academic instruction should be maintained at a minimum, in order to offer the theoretical and practical instruction required for the agricultural subjects. Thus, the second year programme should include botany, agricultural chemistry, zoology, horticulture, animal husbandry, agronomy (crops), poultry and agricultural economics. The third year should comprise animal husbandry, agronomy (crops, soils), agricultural engineering, horticulture, agricultural chemistry, surveying, veterinary science, poultry, entomology and botany. The fourth year should include agronomy (soils and crops), irrigation, horticulture, animal husbandry, surveying, agricultural economics, entomology and veterinary science.

In suggesting that two training centres be developed at Sidi Mesri for Tripolitania and at the Magdalena School of Agriculture for Cyrenaica it is intended that the present facilities of both places be utilized and improved to provide the minimum requirements previously established in this report. Thus, the situation would be as follows:

Sidi Mesri. Situated a few miles outside Tripoli, it houses the Department of Agriculture and the only experimental station in the country. Without affecting the work of either institution, this training centre could share certain of their facilities. The chemical and biological laboratories are complete, with first class equipment and installations sufficient to cover the needs of experimentation and at the same time service the training centre. The latter's initial expenses would be for working materials only, such as acids and reagents.

Animal husbandry buildings and animals can also supply the requirements of the training centre in this field. Such facilities include a dairy barn with cows and several bulls, poultry houses stocked with chickens, and sheds for horses, mules, sheep and goats, complete with the animals. Orchards of olives, citrus fruit, date palms, etc. exist in sufficient acreage to allow access to the students of the training centre. In the same way, the centre's students can pursue agronomy studies by using Sidi Mesri's extensive irrigated and dry farming facilities. The items required for the establishment of the training centre, which Sidi Mesri lacks, are an administration building for the training centre, educational classrooms, boarding facilities for students and teachers, staff for all departments, furniture and equipment of school buildings and classrooms, and agricultural equipment and animals required for practical instruction in crop and orchard cultivation.

The Magdalena School of Agriculture in Cyrenaica is located near Barce, where the Cyrenaica Department of Agriculture has its headquarters. Designed to offer a three year course for students having completed primary education, it has already been operating for one year with a total attendance of 36 pupils for its first year course. In 1952 it opened its second year courses. In order to develop this establishment into an agricultural training centre of the type envisaged in this report, the existing facilities must be expanded. Since at present the teaching staff consists only of three graduates of the Palestinian School of Agriculture of Kadoorie, the rest of the personnel required for the training centre would have to be recruited. The boarding facilities should be increased considerably in order to accommodate the number of students prescribed for the new centre. Administration buildings, classrooms, laboratories and their furnishings will have to be provided, as well as field facilities for animal husbandry, agronomy, and horticulture, complete with animals and equipment of all types. Land required for all cultures as well as irrigation equipment and facilities will be needed. The present curriculum must be improved, based on the one suggested in this report. The exact estimate of the investment needed for the development of both training centres will have to be calculated, using as a base the approximate cost of the requirements of the centre as previously established.

Agricultural Technicians

The development of the country's agricultural resources will eventually have to depend on Libya's own technicians, who should undertake the continuation of the work begun by imported professionals. However, since the establishment within the country of facilities for the training of a cadre of agricultural technicians of university level is not economically possible in the near future, the country will have to depend on foreign universities, and grant a sufficient number of scholarships in agriculture to Libyan nationals. So that the full benefits will be obtained from such scholarships the following points should be considered:

1. The universities chosen should be located in countries with conditions similar, in the particular field of studies, to those in Libya.
2. For the immediate future no scholarship should be granted for studies above that of Master of Science in Agriculture.
3. The scholarships should be granted to the outstanding students of Cyrenaica, Tripolitania and the Fezzan after a selection of the applicants using the criteria of:

- (a) possession of a high school diploma;
- (b) written examination to test academic aptitude;
- (c) interview by government officials in order to judge the applicant's personality;
- (d) contract with the student guaranteeing his services to the Government of Libya for a reasonable length of time.

SUMMARY AND CONCLUSIONS

This section has dealt with the vital question of Libyan agricultural education. The importance of expanding it as quickly as possible, if agricultural development is to be given its proper place in the development plan, cannot be over-emphasized for improvement in this will be greatly dependent on enhancing the skill of the country's agricultural workers.

In agriculture, the training programme requires the following projects:

1. Organization of the agricultural training centres, one in Tripolitania, the other in Cyrenaica, to undertake the formation of
 - (a) practical agriculturalists; (b) rural teachers.
2. Establishment of 25 scholarships for higher studies in the various agricultural fields.
3. Orientation of the rural school toward an agricultural bias meeting the student level by:
 - (a) adaptation of teaching material to the students' rural environment;
 - (b) the introduction of agriculture as a subject of classroom instruction;
 - (c) the provision of practical instruction through school gardens and field demonstrations.



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